



# DEMENTIA *ART* ACADEMY

The Architectural Canvas of Dementia Well-being

Simone Bosveld

 TU Delft

P5 Dwelling - Health & Care  
18.06.2024

**1. RESEARCH**

**2. DESIGN BRIEF**

**3. CONCEPT**

**4. SITE**

**5. THE ACADEMY**

**1. RESEARCH**

**2. DESIGN BRIEF**

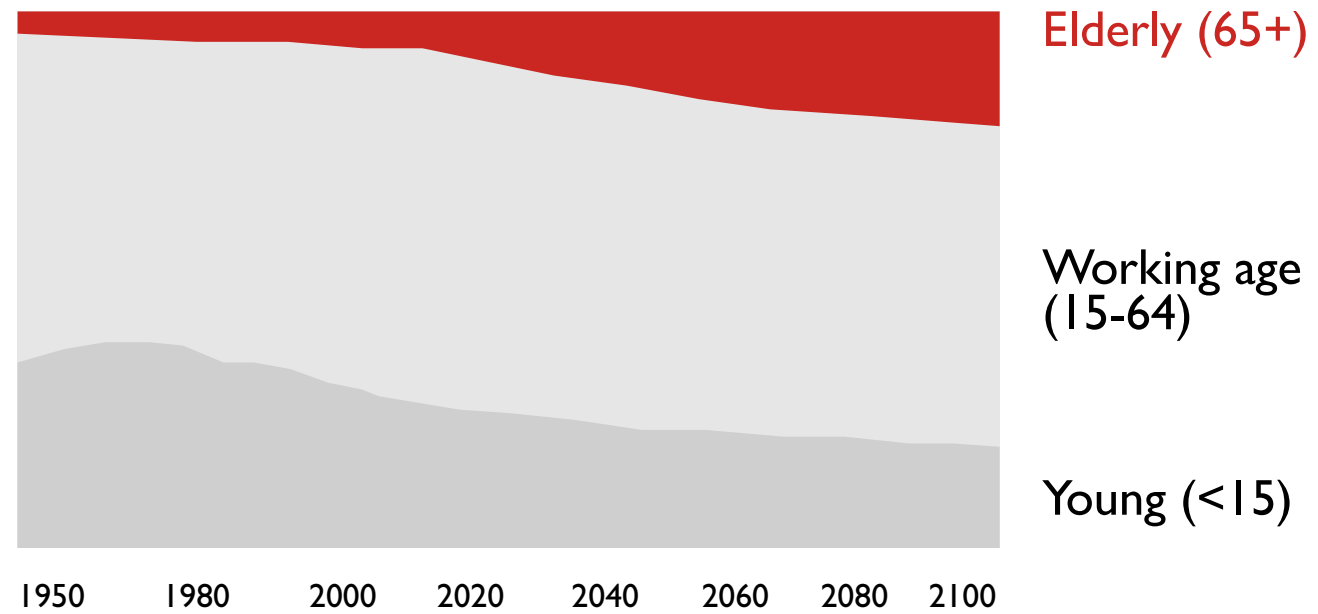
**3. CONCEPT**

**4. SITE**

**5. THE ACADEMY**

# Research INTRODUCTION

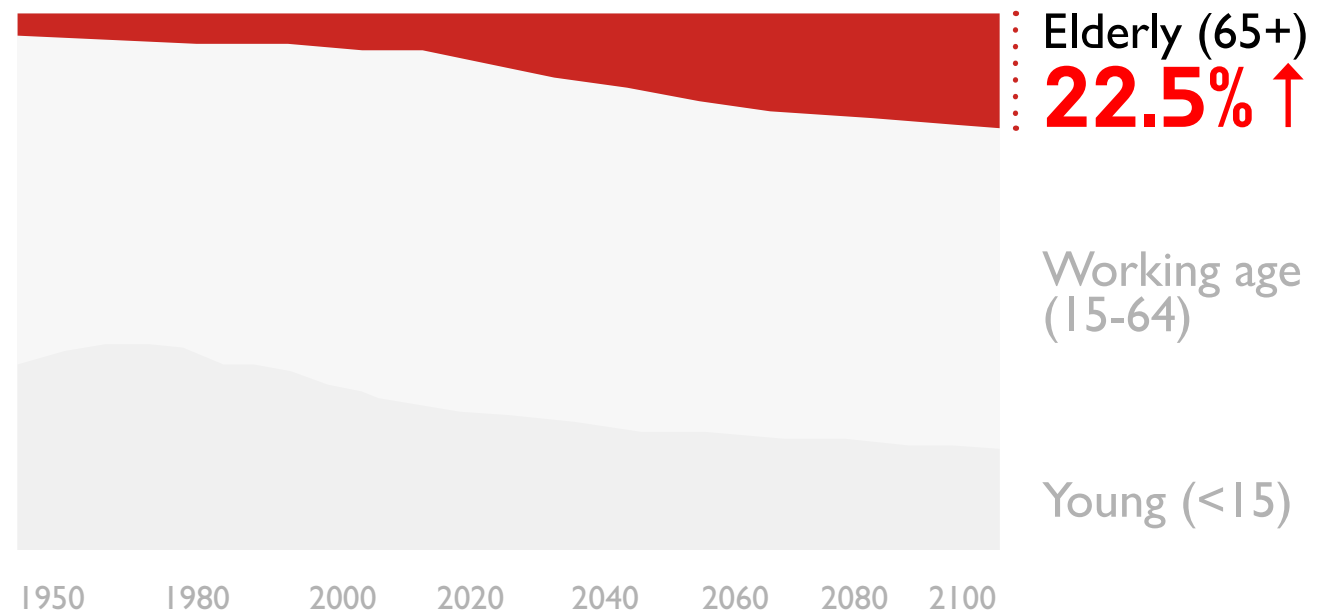
## Relative size of world population by age



Source: <https://www.vox.com/videos/23311747/dementia-villages-elderly-care-senior-home>

# Research INTRODUCTION

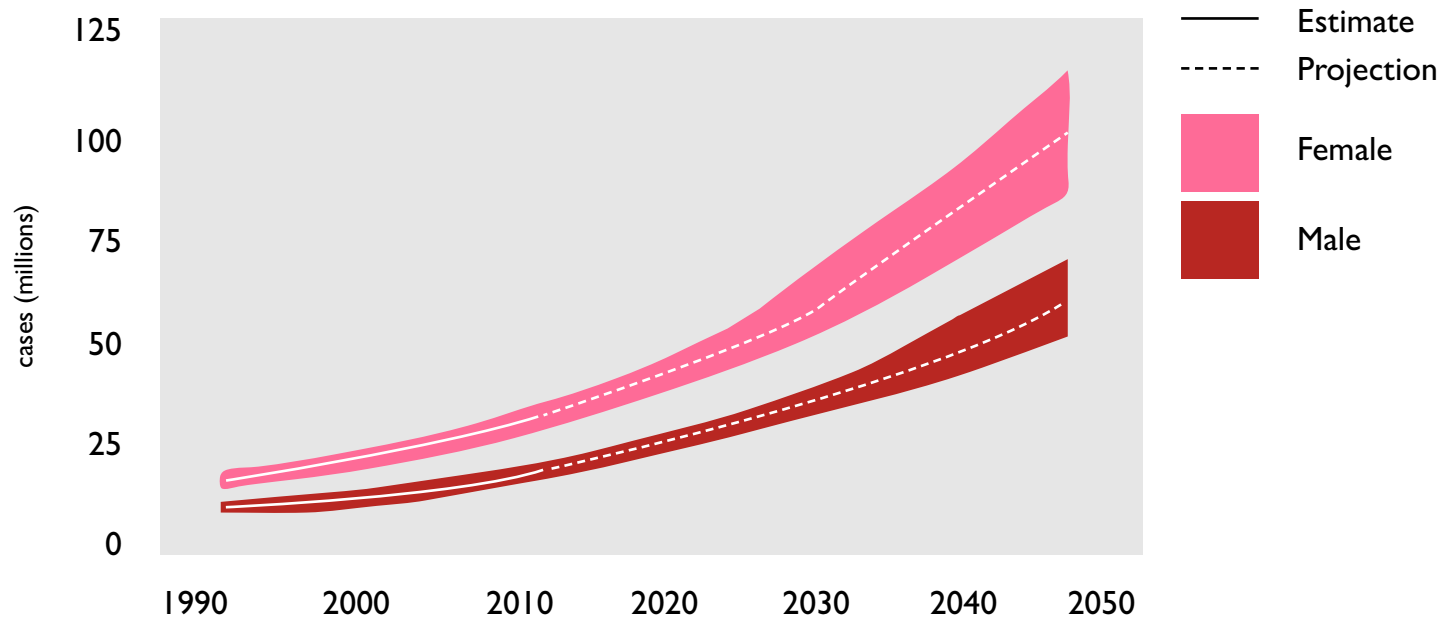
## Relative size of world population by age



Source: <https://www.vox.com/videos/23311747/dementia-villages-elderly-care-senior-home>

# Research INTRODUCTION

## Individuals diagnosed with dementia



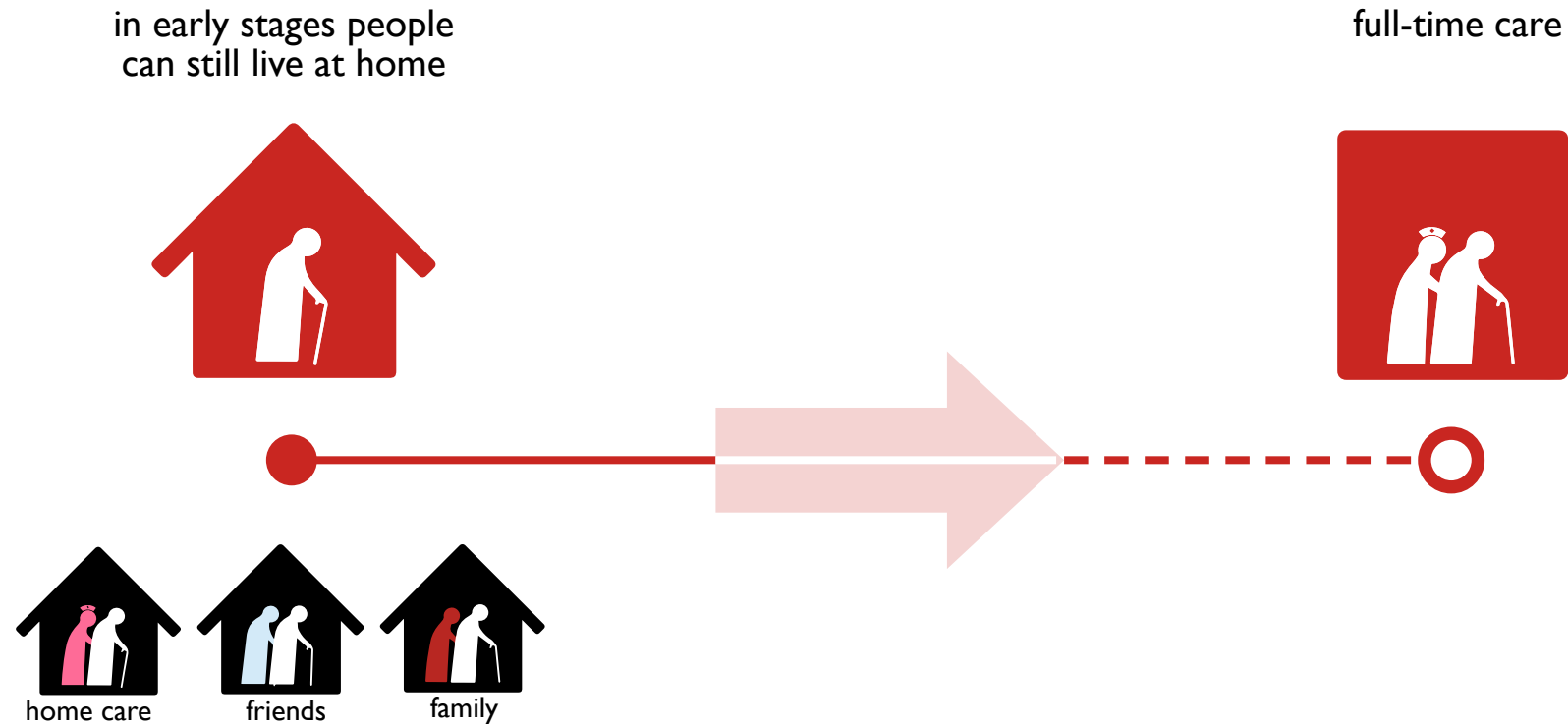
Source: <https://www.vox.com/videos/23311747/dementia-villages-elderly-care-senior-home>

# Research INTRODUCTION

in early stages people  
can still live at home



# Research INTRODUCTION





Research  
**THE PROBLEM**

**1**

**2**

**3**

Research  
**THE PROBLEM**

**1**

**2**

**3**



**rising amount  
of people with  
dementia**

Research  
**THE PROBLEM**

**1**

**2**

**3**



rising amount  
of people with  
dementia

**burden on  
health  
care system**

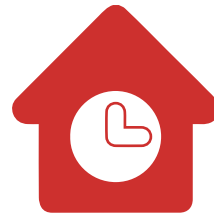
Research  
**THE PROBLEM**

**1**



rising amount  
of people with  
dementia

**2**



people  
must live  
at home  
longer

**3**

burden on  
health  
care system

Research  
**THE PROBLEM**

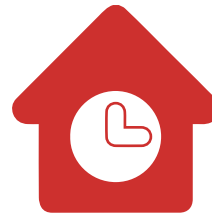
**1**



rising amount  
of people with  
dementia

**burden on  
health  
care system**

**2**



people  
must live  
at home  
longer

**pressure  
on informal  
caregivers**

**3**

Research  
**THE PROBLEM**

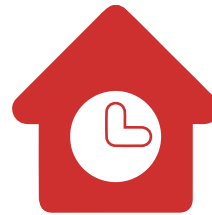
**1**



rising amount  
of people with  
dementia

**burden on  
health  
care system**

**2**



people  
must live  
at home  
longer

**pressure  
on informal  
caregivers**

**3**



suboptimal  
care settings

Research  
**THE PROBLEM**

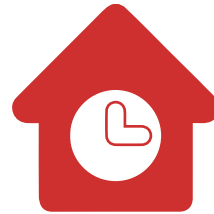
**1**



rising amount  
of people with  
dementia

**burden on  
health  
care system**

**2**



people  
must live  
at home  
longer

**pressure  
on informal  
caregivers**

**3**



suboptimal  
care settings

**unhappiness  
among  
individuals with  
dementia**

# Research THE PROBLEM

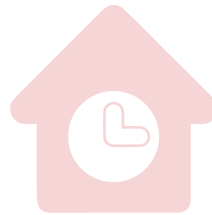
1



rising amount  
of people with  
dementia

burden on  
health  
care system

2



people  
must live  
at home  
longer

pressure  
on informal  
caregivers

3



suboptimal  
care settings

unhappiness  
among  
individuals with  
dementia



Dementia is a growing global concern due to an aging population. In the Netherlands, there are currently 110,000 people diagnosed with dementia. Additionally, there are approximately 120,000 people who suffer from dementia, but have not yet received a diagnosis (www.alzheimer-nederland.nl). Out of the 230,000 people in total, more than 160,000 are currently living at home. The amount of people living at home is expected to double in 2050, according to the Alzheimer Report (2023). This places a significant burden on the healthcare system.

The growth in the number of people with dementia is a societal issue. Societally, it means that there is an increasing burden on healthcare: dementia is the condition with the highest mortality and the highest disease burden (LKCA, 2023). Individually, it means that people with dementia and their loved ones must (learn to) deal with the consequences of the disease (Peeters et al., 2015). Many people with dementia need to be admitted to nursing homes, but the vast majority of individuals with dementia wishes to continue living at home for as long as possible (Peeters et al., 2015). Because dementia often co-occurs with comorbidities and social, and behavioural issues, care is generally complex, so family caregivers are often heavily burdened (Zwaanswijk et al., 2010). Already in 2002, the Health Council of the Netherlands recognized the need for improvement in dementia care due to the absence of integration and cohesion (Gezondheidsraad, 2002). Over the past few years, numerous initiatives have been undertaken to enhance the quality of dementia care, including efforts within the National Dementia Program (LDP, 2003-2008). There is a pressing need to enhance the design of interior spaces to address the specific needs of individuals with dementia. From dementia challenges, communication problems, navigation, emotional well-being, and social interaction. This encompasses not only the physical elements such as signage and furniture but also considers the broader spatial and sensory experience.

For people with dementia, it is important to remain socially engaged (Wilson et al., 2007). Social interaction is often one of their primary needs and the lack of it can even lead to the development of dementia (Wilson et al., 2007). However, as dementia progresses, the ability to initiate social contact independently, declines. Apathy and social isolation are common with people suffering from dementia and have a

negative impact on their well-being even the quality of life (Peeters et al., 2015).

Research shows that art can be a way to still connect with these individuals and have proven to be a contribution to the sense of purpose, problem-solving abilities, self-confidence,

## **Apathy and social isolation are common in dementia**

When we think of the visual arts in Basting's work (2006), we can think not only of painting or drawing but also of the graphic design within a building. The layout design of a nursing home plays a crucial role in shaping residents' spatial orientation and wayfinding, which is particularly important for people suffering from dementia (Basting, 2006). Supplementary elements like lighting, and colours provide a supportive environment that cannot fully compensate for physical limitations (Marquardt, 2011). This stresses the importance of incorporating art into an early stage of architectural design for dementia. Combining visual art within the building along with an interior fit for art-based therapy could potentially result in an optimal architectural design for dementia care, improving the well-being of the patients.

For this study, I commenced with a literature study. There

## **Art can be a way to connect and improve well-being**

of the foundational studies for my research is the FINGER study. This study examines preventive measures for cognitive decline and disability in individuals at risk for dementia, employing a comprehensive approach that includes lifestyle interventions such as diet, physical activity, cognitive training, and vascular risk monitoring. The aim is to enhance overall brain health and postpone the onset of cognitive impairment. Kitwood and Bredin (1992), Clarke et al. (2020), and Keyes (2007) are crucial studies that have been compared and incorporated into this research. Kitwood et al. (1992) establish 12 indicators for relative well-being, each closely tied

to observable behaviour. They discuss 'a conceptualization of personhood', presenting evidence of relative well-being even in those severely demented from a cognitive standpoint. The argument is made that the central psychological task in dementia care is to preserve the sufferer's personhood. Clarke et al. (2020) introduce a conceptual framework with domains for measuring well-being in people with dementia, aligning with Keyes' (2007) model of well-being.

In my study, I have explored various viewpoints in existing literature about how art-based interventions to affect dementia. Gross' et al. (2013) investigation into an art activity program reveals that while quantitative outcomes may not show improvement, caregivers do observe a notable difference in the well-being of participants. This theory is emphasized by Beard's (2011) critical review of arts therapies for individuals with Alzheimer's. She as well urges a shift towards subjective well-being measures instead of quantitative. Also Hendriks (2022) measures life in a person-centred way by nature and art interventions. Basting's (2006) emphasis on the positive

## **leading to the progression of dementia**

playfulness in the environment for individuals with dementia is a key concept. Advocating for a more holistic approach (Kukh (2018) and defining well-being in a safe and supportive environment. While these studies form the foundation of my research, additional comparisons will be made with studies focusing on specific art forms, like sculpting (Seifert, 2007), to further enrich the investigation.

Specific research on architecture for individuals with dementia have been examined with the studies by Torrington (2018) as crucial foundations. Torrington's study explores the influence of the built environment on the quality of life. His 'independent project' explores various strategies to enhance quality of life for individuals with dementia, exploring the interaction between the built environment and meaningful activity. On the other hand, Basting's (2006) study compares traditional nursing homes with smaller-scale living facilities and green care farms, examining how the physical environment is used in terms of location, engagement, and social interaction of residents.

Finally, I have also explored research that focuses on interior interventions for dementia. Gramegna's work emphasized a creative approach to building management and sensory rich environments for individuals with dementia. In contrast, Marquardt's (2011) paper specifically focuses on architectural wayfinding design in nursing homes, highlighting the critical influence of the floor plan on resident's spatial orientation

IF **ART** HAS THE CAPACITY TO PROMOTE  
**WELL-BEING** AMONG PEOPLE  
SUFFERING FROM **DEMENTIA**

WHAT DOES THIS MEAN FOR  
**ARCHITECTURE?**

Research  
**CONTENT**

**DEMENTIA - ART - ARCHITECTURE**

Research  
**CONTENT**

**DEMENTIA - ART - ARCHITECTURE**

fieldwork / interviews / literature / case studies

## DEMENTIA - ART - ARCHITECTURE

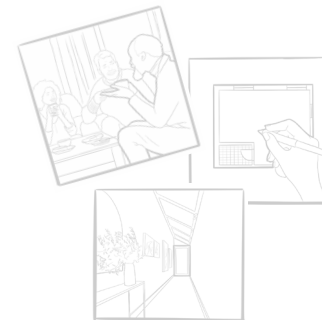
fieldwork / interviews / literature / case studies



dementia  
well-being  
definition



effect of art on  
dementia  
well-being



design principles  
for dementia  
architecture

## DEMENTIA - ART - ARCHITECTURE

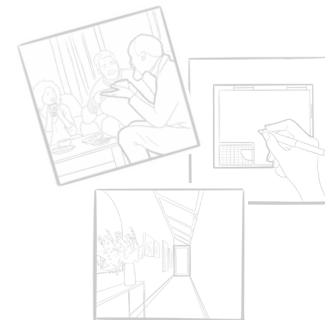
fieldwork / interviews / literature / case studies



dementia  
well-being  
definition



effect of art on  
dementia  
well-being



design principles  
for dementia  
architecture

## DEMENTIA - ART - ARCHITECTURE

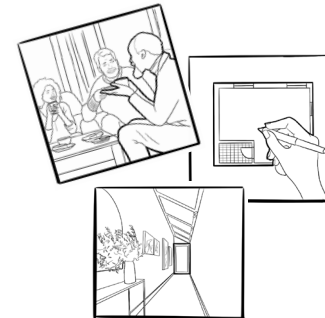
fieldwork / interviews / literature / case studies



dementia  
well-being  
definition

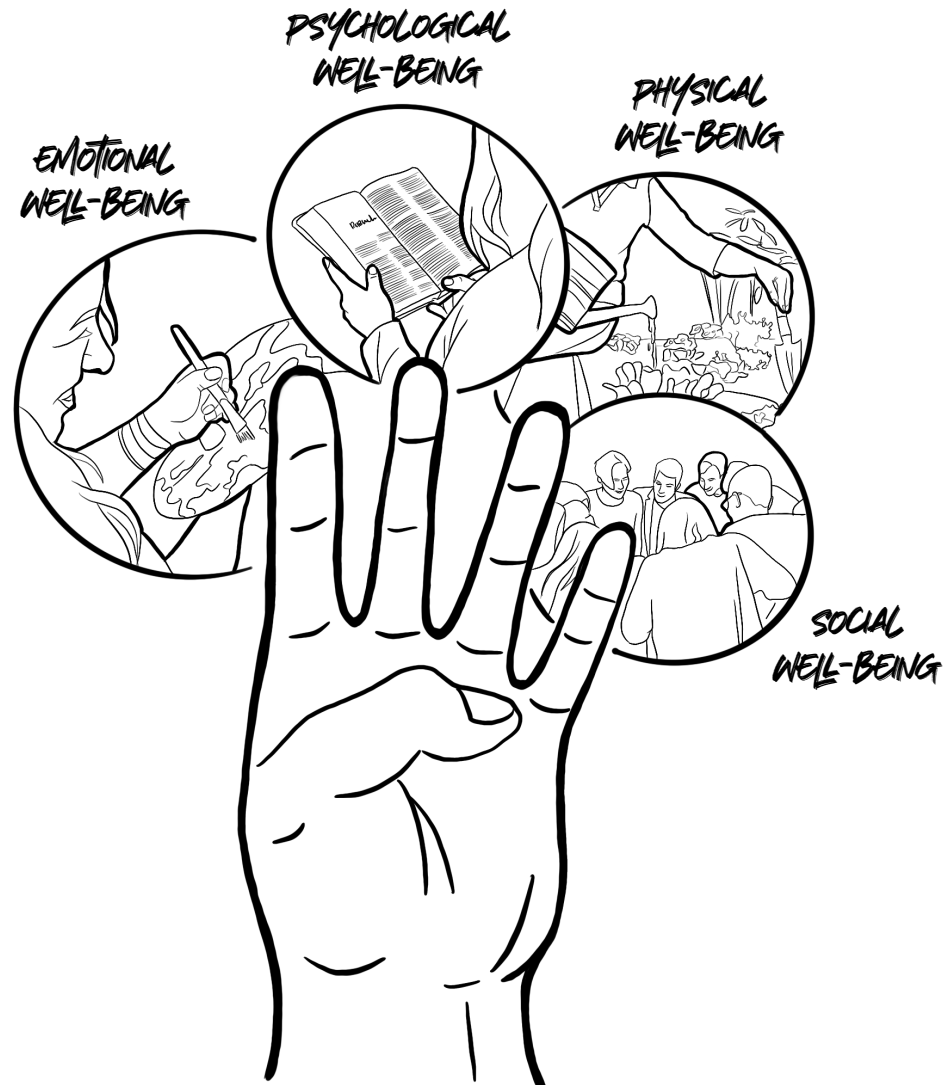
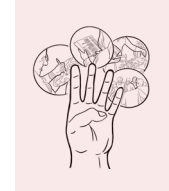


effect of art on  
dementia  
well-being



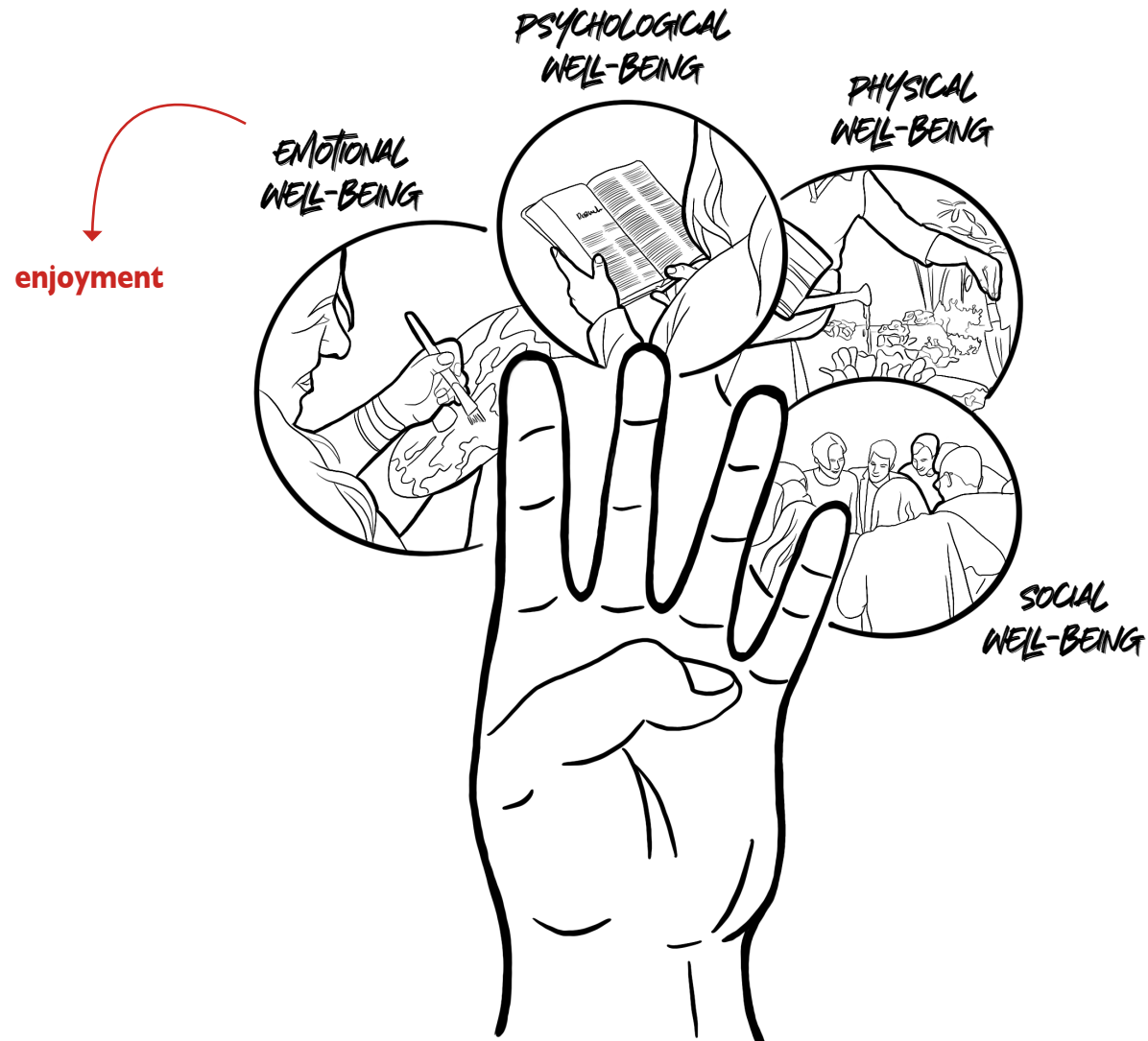
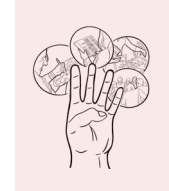
design principles  
for dementia  
architecture

# Research DEMENTIA WELL-BEING DEFINITION

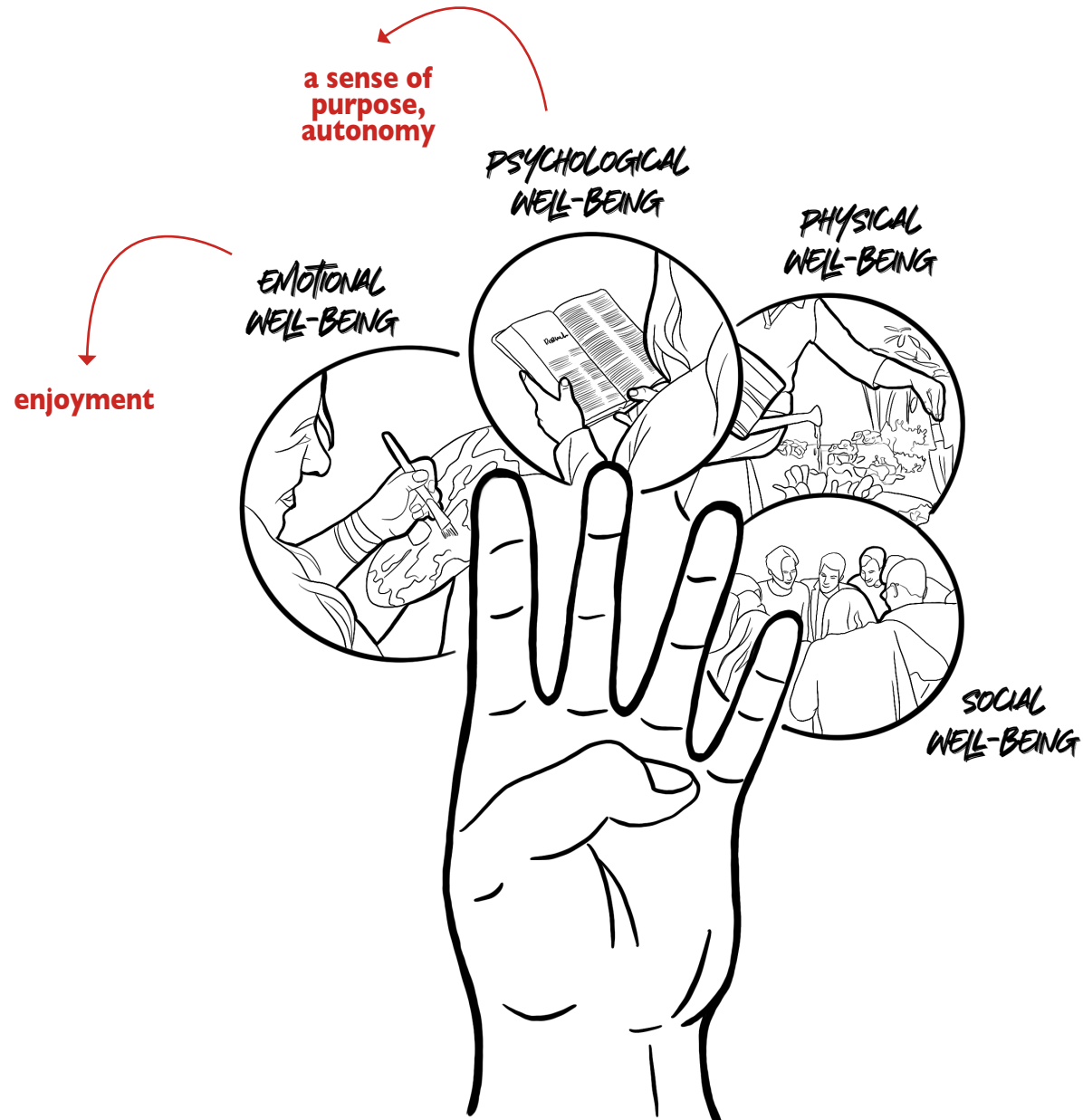
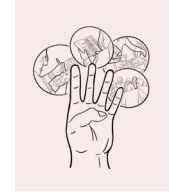




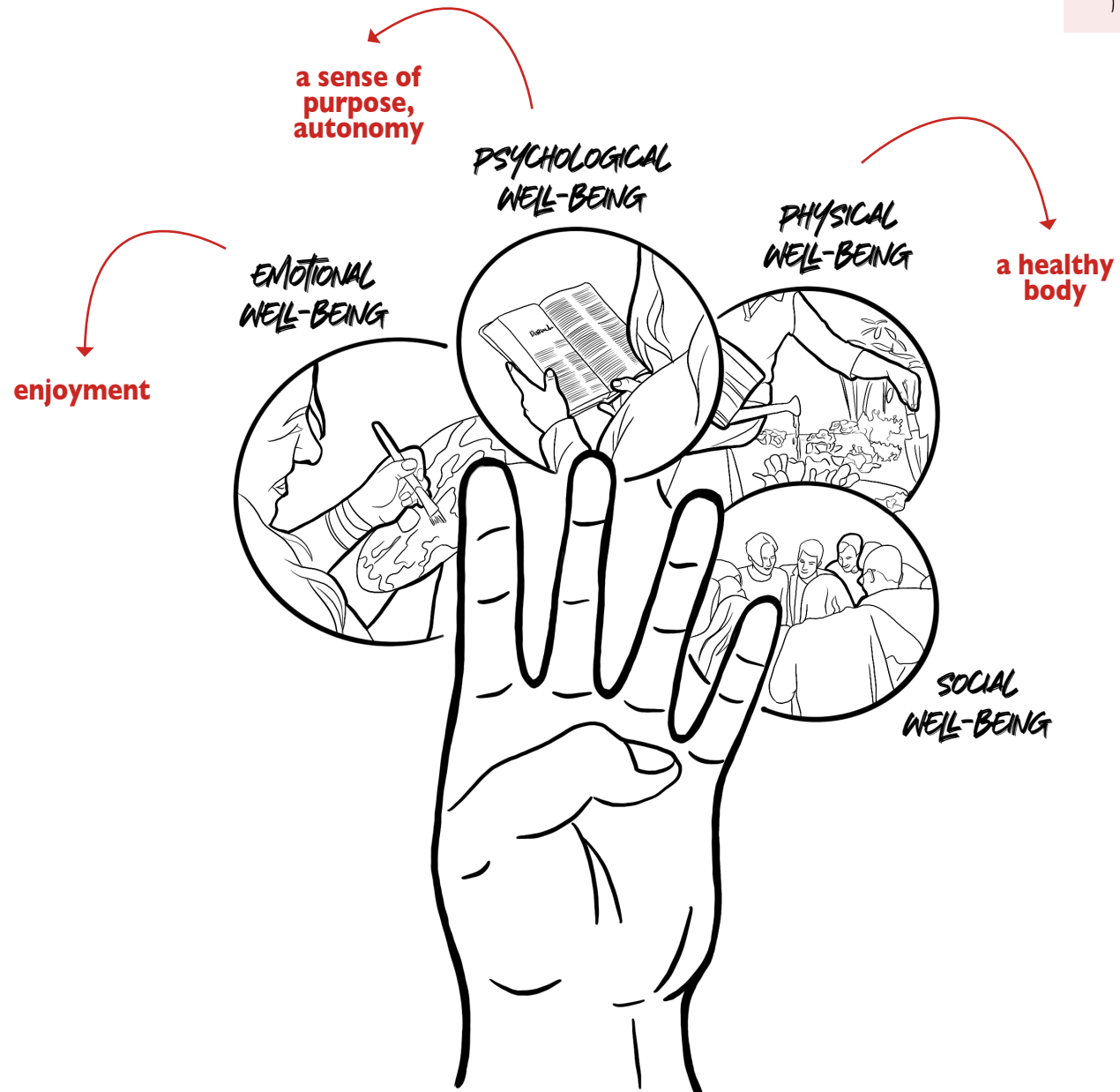
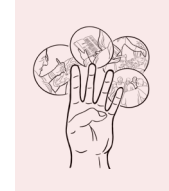
# Research DEMENTIA WELL-BEING DEFINITION



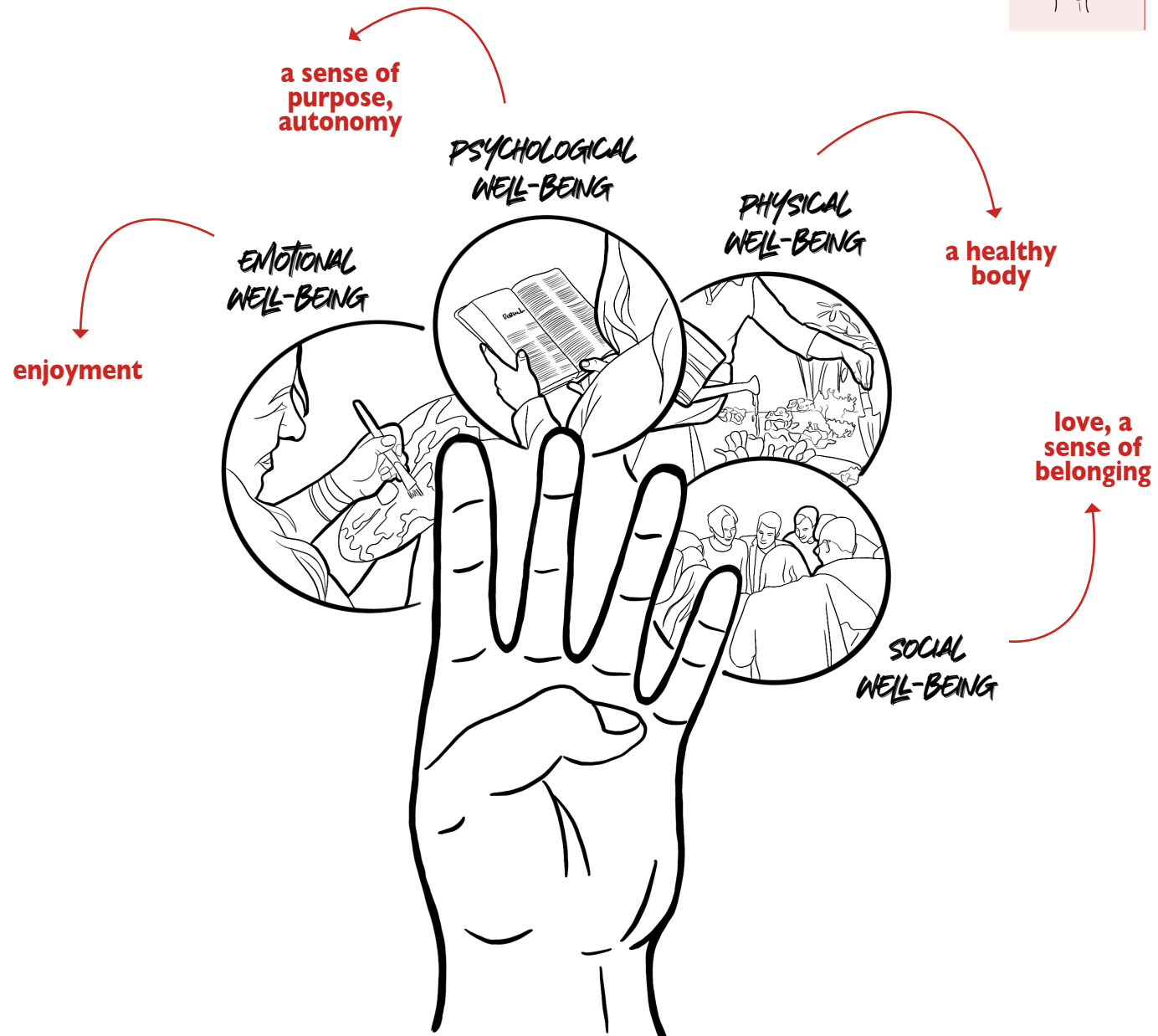
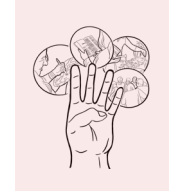
# Research DEMENTIA WELL-BEING DEFINITION



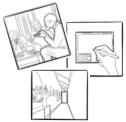
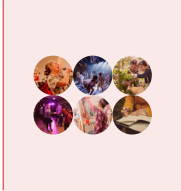
# Research DEMENTIA WELL-BEING DEFINITION



# Research DEMENTIA WELL-BEING DEFINITION



Research  
**EFFECT OF ART ON DEMENTIA WELL-BEING**



Music



Drama & theatre



Cooking & gardening



Activity therapy

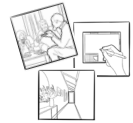
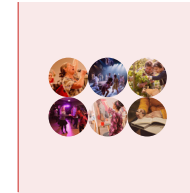


Visual arts and crafts



Poetry

# Research EFFECT OF ART ON DEMENTIA WELL-BEING



	<b>Emotional well-being</b>	<b>Psychological well-being</b>	<b>Physical well-being</b>	<b>Social well-being</b>
<b>Music</b>				
<b>Visual arts &amp; crafts</b>				
<b>Cooking &amp; gardening</b>				
<b>Activity therapy</b>				
<b>Drama &amp; theatre</b>				
<b>Poetry</b>				

**Great positive impact**

# Research DESIGN PRINCIPLES FOR DEMENTIA ARCHITECTURE



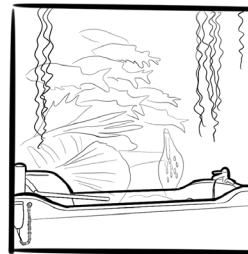
## WHAT FACTORS SHOULD BE CONSIDERED WHEN DESIGNING A BUILDING FOR PEOPLE WITH DEMENTIA?



1. Easy orientation



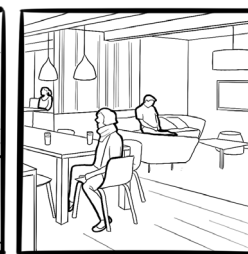
2. Facilitate engagement



3. Sensory environment



7. Secure perimeters



8. Cluster living arrangements



9. Minimal change / direction



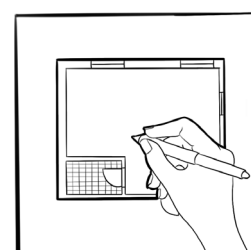
4. Balance between therapeutic & memory spaces



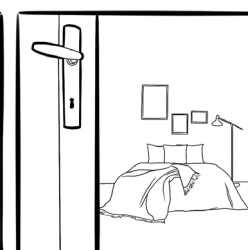
5. Clear overview



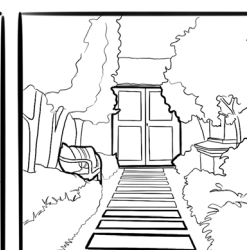
6. Promote social contact



10. Simple floorplans



11. Visual access



12. Inviting walkways

General guidelines

Architectural guidelines

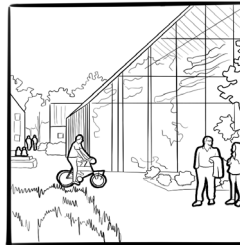
# Research DESIGN PRINCIPLES FOR DEMENTIA ARCHITECTURE



## HOW CAN ART ASSIST PEOPLE WITH DEMENTIA IN ARCHITECTURE?



13. Integrate daily functions



14. Fostering a sense of community



15. Design appealing outdoor space



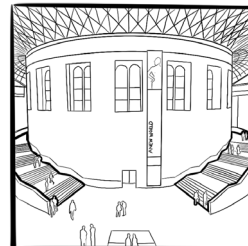
16. Provide flexible spaces



17. Empower autonomy



18. Focus on art and creativity



19. Create a central (cultural) hub



20. Feature prominent placement of artworks

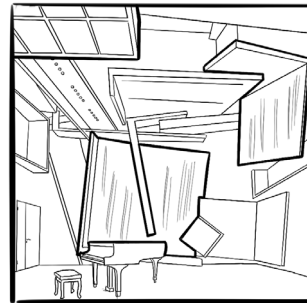
Additional art-related guidelines



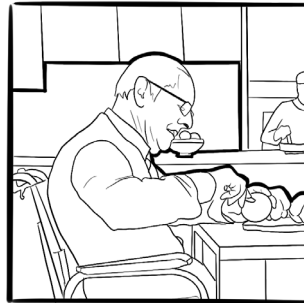
Research  
**DESIGN PRINCIPLES FOR  
DEMENTIA ARCHITECTURE**



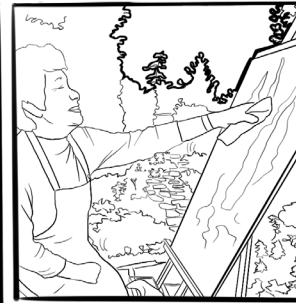
## WHAT SPECIFICALLY DO THE ART FORMS OF THIS RESEARCH NEED?



21. Good acoustics

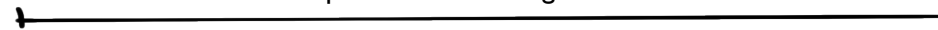


22. Accessible and safe  
kitchen space

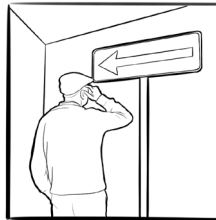
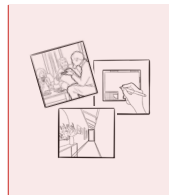


23. Daylight access

Specific art-related guidelines



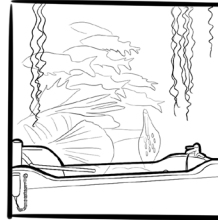
# Research DESIGN PRINCIPLES FOR DEMENTIA ARCHITECTURE



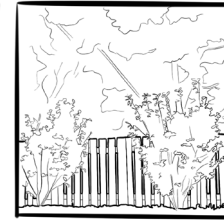
1. Easy orientation



2. Facilitate engagement



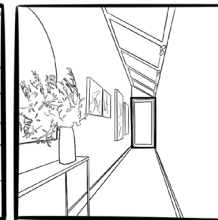
3. Sensory environment



7. Secure perimeters



8. Cluster living arrangements



9. Minimal change / direction



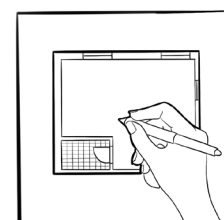
4. Balance between therapeutic & memory spaces



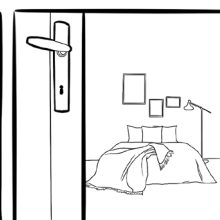
5. Clear overview



6. Promote social contact



10. Simple floorplans



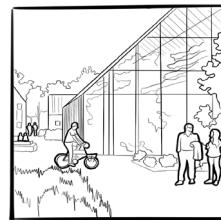
11. Visual access



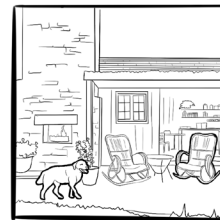
12. Inviting walkways



13. Integrate daily functions



14. Fostering a sense of community



15. Design appealing outdoor space



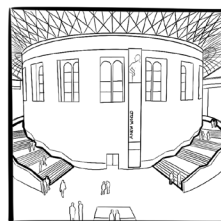
16. Provide flexible spaces



17. Empower autonomy



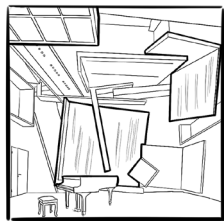
18. Focus on art and creativity



19. Create a central (cultural) hub



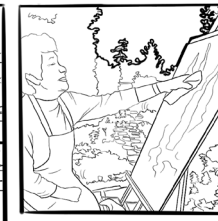
20. Feature prominent placement of artworks



21. Good acoustics



22. Accessible and safe kitchen space



23. Daylight access

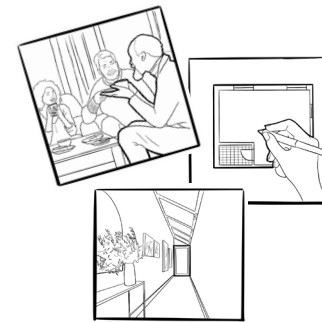
# Research CONCLUSION



dementia  
well-being  
definition



effect of art on  
dementia  
well-being



design principles  
for dementia  
architecture

**1. RESEARCH**

**2. DESIGN BRIEF**

**3. CONCEPT**

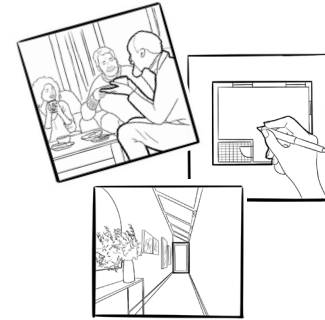
**4. SITE**

**5. THE ACADEMY**

Design brief  
**FOCUS**



**art practices**

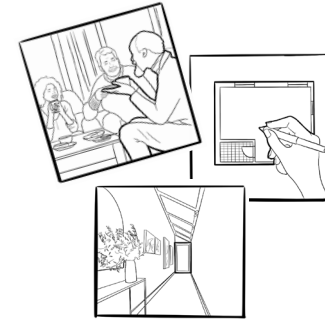


**guidelines**

Design brief  
**FOCUS**



**art practices**



**guidelines**



**respite care**



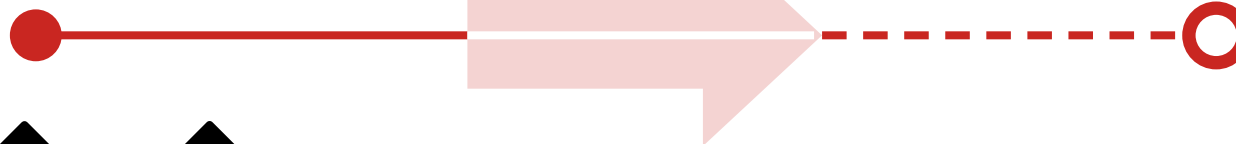
**young people**

# Design brief RESPIRE CARE

in early stages people  
can still live at home



full-time care



home care

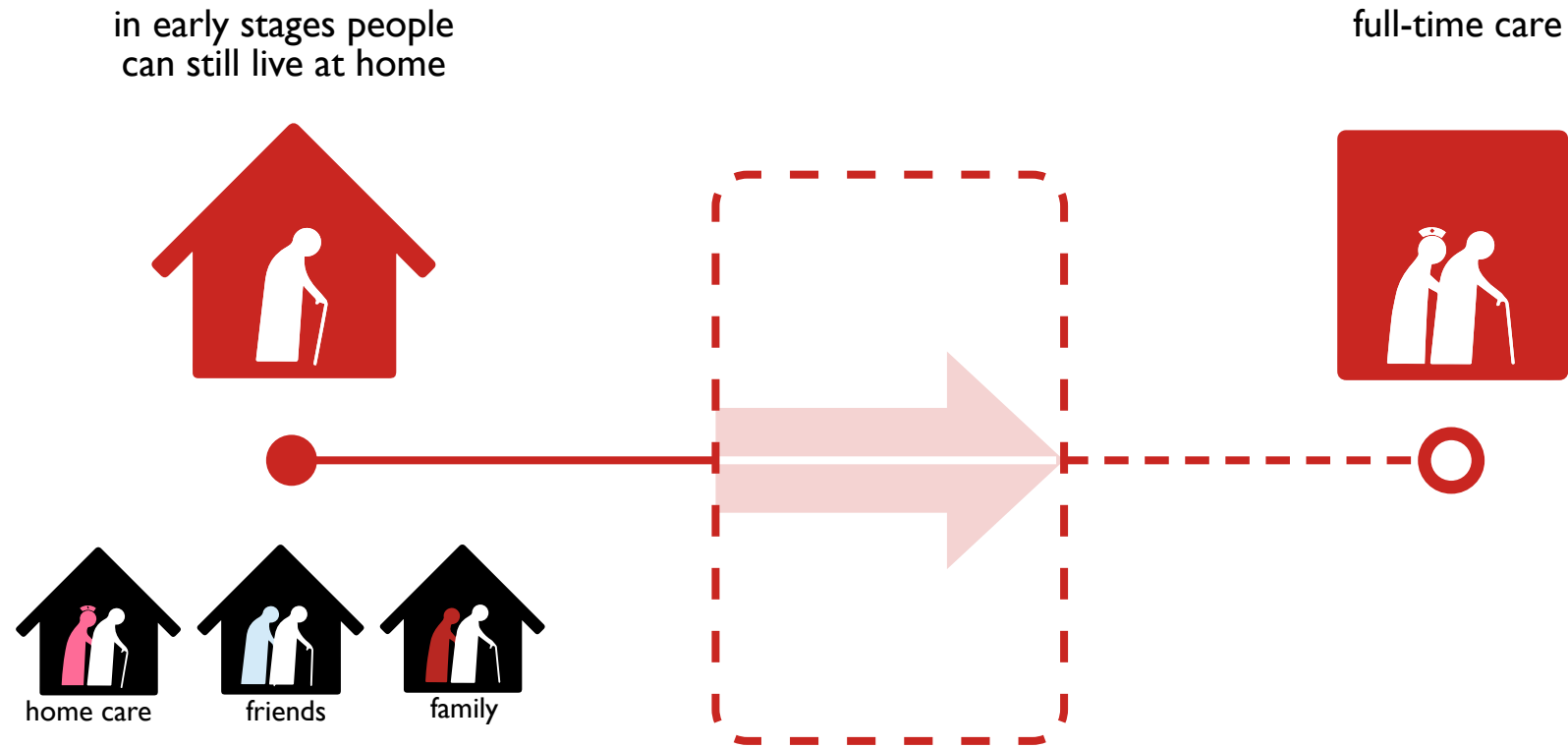


friends



family

# Design brief RESPIRE CARE





Design brief  
**RESPIRE CARE**



**RESPIRE CARE**

temporary care

allows informal caregivers to  
recharge

enables people with dementia to  
live at home longer

Design brief  
**FOCUS**



**art practices**



**guidelines**



**respite care**



**young people**

Design brief  
**YOUNG PEOPLE**



**YOUNG PEOPLE**

positive effect on  
people with dementia

gain knowledge about the disease

integrate people with dementia  
into society

Design brief  
**FOCUS**



**art practices**



**guidelines**



**respite care**



**young people**

# Design brief DESIGN GUIDELINES IMPLEMENTATION

	1. Easy orientation	2. Facilitate engagement	3. Sensory environment	4. Balance between therapeutic & memory spaces	5. Clear overview	6. Promote social contact	7. Secure perimeters	8. Cluster living arrangements	9. Minimal change / direction	10. Simple floorplans	11. Visual access	12. Inviting walkways	13. Integrate daily functions	14. Fostering a sense of community	15. Design appealing outdoor space	16. Provide flexible spaces	17. Empower autonomy	18. Focus on art and creativity	19. Create a central (cultural) hub	20. Feature prominent placement of artworks	21. Good acoustics	22. Accessible and safe kitchen space	23. Daylight access	
art therapy (day care)																								
care facility + garden																								
dementia care facility																								

Design brief  
**DESIGN GUIDELINES IMPLEMENTATION**

1. Easy orientation
2. Facilitate engagement
3. Sensory environment
4. Balance between therapeutic & memory spaces
5. Clear overview
6. Promote social contact
7. Secure perimeters
8. Cluster living arrangements
9. Minimal change / direction
10. Simple floorplans
11. Visual access
12. Inviting walkways
13. Integrate daily functions
14. Fostering a sense of community
15. Design appealing outdoor space
16. Provide flexible spaces
17. Empower autonomy
18. Focus on art and creativity
19. Create a central (cultural) hub
20. Feature prominent placement of artworks
21. Good acoustics
22. Accessible and safe kitchen space
23. Daylight access

	dementia care facility	care facility + garden	art therapy (day care)																



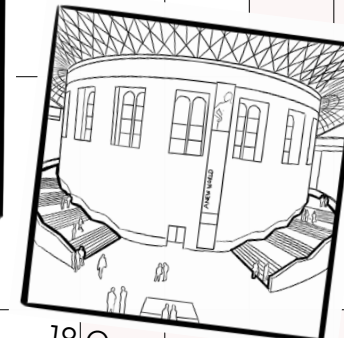
4. Balance between therapeutic & memory spaces



14. Fostering a sense of community



17. Empower autonomy



19. Create a central (cultural) hub

**1. RESEARCH**

**2. DESIGN BRIEF**

**3. CONCEPT**

**4. SITE**

**5. THE ACADEMY**

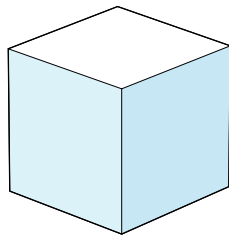


DEMENTIA *ART* ACADEMY

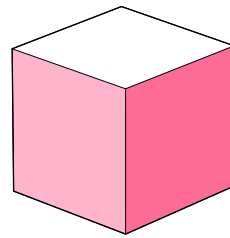


Concept  
PROGRAM

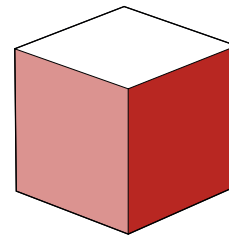
# DEMENTIA *ART* ACADEMY



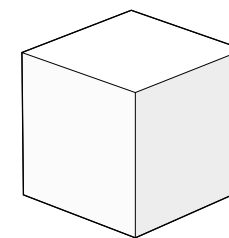
+



+



+



**Art students**

**Art**

**Dementia  
respite  
care**

**Guidelines**

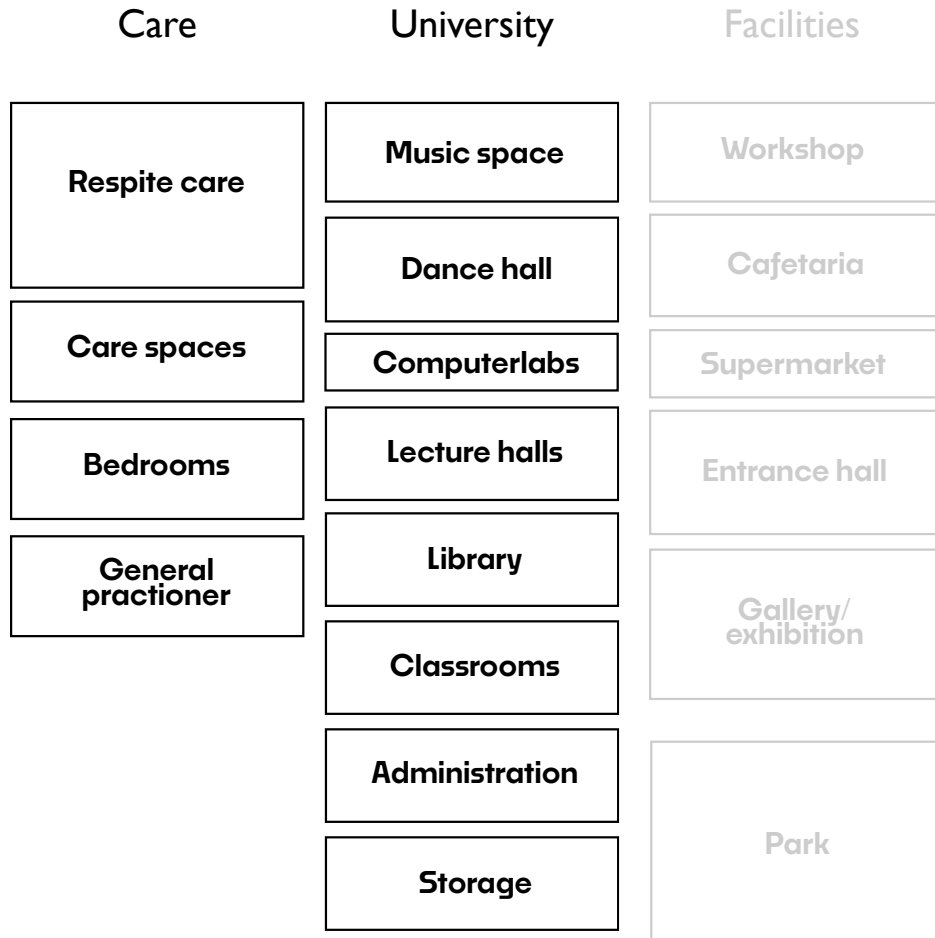
Concept  
**DETAILED PROGRAM**

**Dementia Art Academy**

Care	University	Facilities
Respite care	Music space	Workshop
Care spaces	Dance hall	Cafeteria
Bedrooms	Computerlabs	Supermarket
General practioner	Lecture halls	Entrance hall
	Library	Gallery/ exhibition
	Classrooms	
	Administration	
	Storage	Park

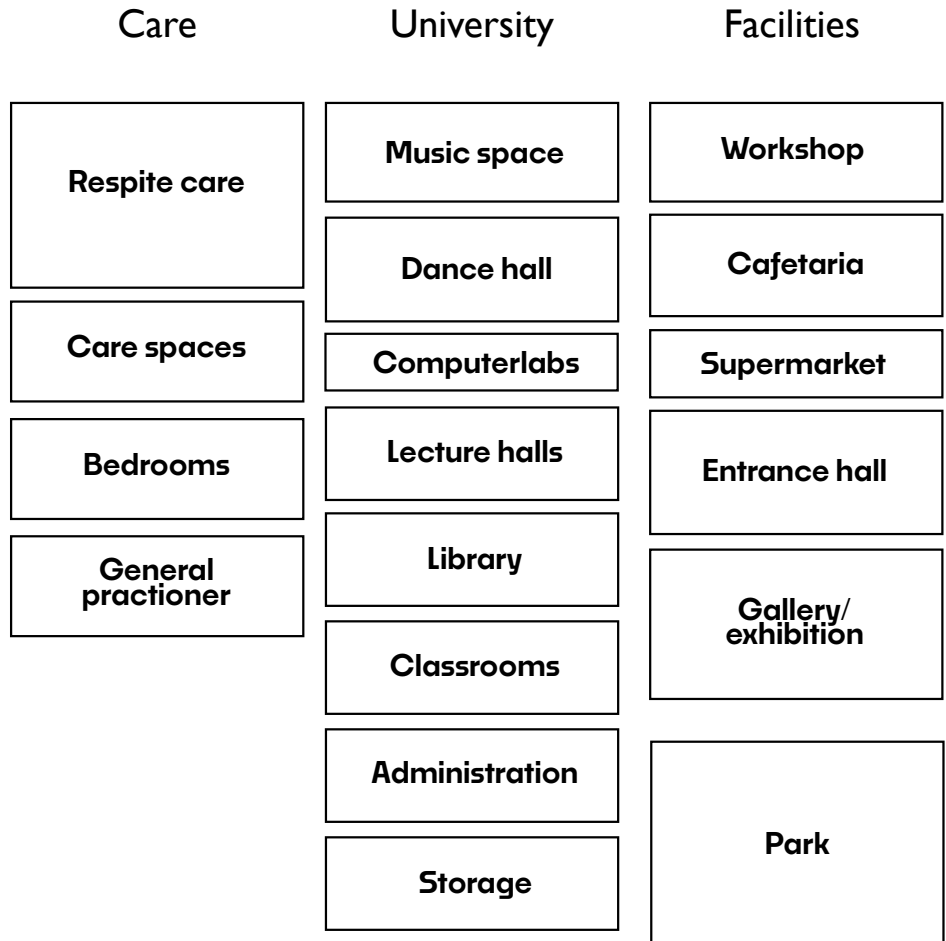
Concept  
**DETAILED PROGRAM**

**Dementia Art Academy**



Concept  
**DETAILED PROGRAM**

**Dementia Art Academy**



# Concept DETAILED PROGRAM

## Dementia Art Academy

Care	University	Facilities
Reception 800 m <sup>2</sup>	Music 300 m <sup>2</sup>	Visual Arts 100 m <sup>2</sup>
Cafeteria 100 m <sup>2</sup>	Dance 300 m <sup>2</sup>	Art Studio 200 m <sup>2</sup>
Bedrooms	College 100 m <sup>2</sup>	Sunroom 100 m <sup>2</sup>
General 50 m <sup>2</sup>	Leisure 300 m <sup>2</sup>	Entertainment 150 m <sup>2</sup>
	200 m <sup>2</sup>	300 m <sup>2</sup>
	1000 m <sup>2</sup>	
	Administration 50 m <sup>2</sup>	
	100 m <sup>2</sup>	Park

# Concept DETAILED PROGRAM

## Dementia Art Academy

Care	University	Facilities
Reception 800 m <sup>2</sup>	Music 300 m <sup>2</sup>	Visual Arts 100 m <sup>2</sup>
Cafeteria 100 m <sup>2</sup>	Dance 300 m <sup>2</sup>	Art Studio 200 m <sup>2</sup>
Bedrooms	College 100 m <sup>2</sup>	Sunroom 100 m <sup>2</sup>
General 50 m <sup>2</sup>	Leisure 300 m <sup>2</sup>	Entertainment 150 m <sup>2</sup>
	200 m <sup>2</sup>	300 m <sup>2</sup>
	1000 m <sup>2</sup>	
	Administration 50 m <sup>2</sup>	
	100 m <sup>2</sup>	Park
900 m <sup>2</sup>	2350 m <sup>2</sup>	850 m <sup>2</sup>

A DAY AT THE  
ACADEMY



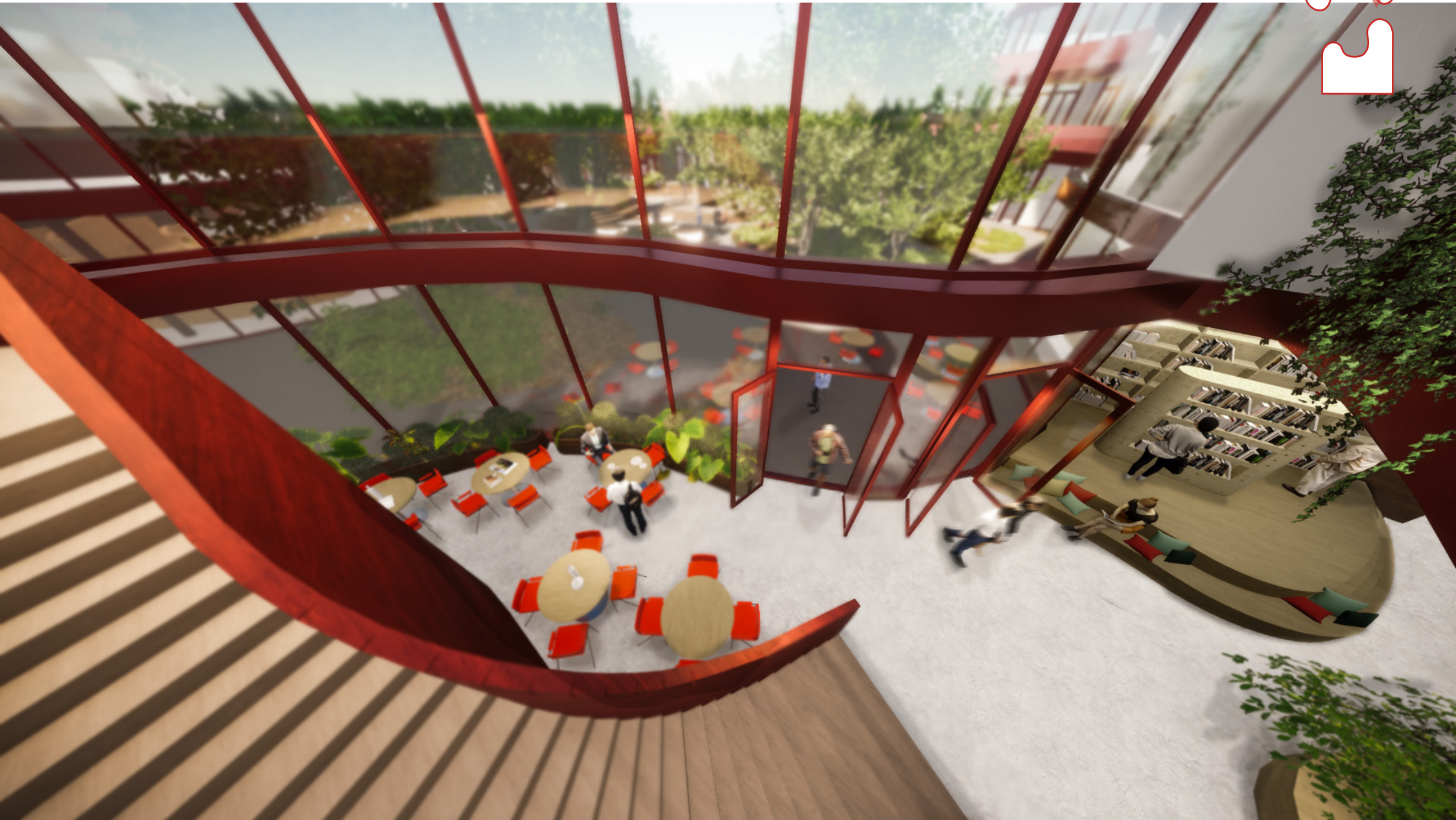














**1. RESEARCH**

**2. DESIGN BRIEF**

**3. CONCEPT**

**4. SITE**

**5. THE ACADEMY**

Site  
**NATIONAL SCALE**



**THE NETHERLANDS, SOUTH-HOLLAND**



Site  
**CITY SCALE**



**SOUTH-HOLLAND, DELFT**

Site  
**CITY SCALE - CHOICE**



**SOUTH-HOLLAND, DELFT**

Site  
**SITE AMBITIONS & CHARACTERISTICS**

**CHARACTERISTICS**

**Station Delft  
Campus**

**Quiet green  
area**

**Clear  
perimeters**

Site  
**SITE AMBITIONS & CHARACTERISTICS**

**CHARACTERISTICS**

**Station Delft  
Campus**

**Quiet green  
area**

**Clear  
perimeters**

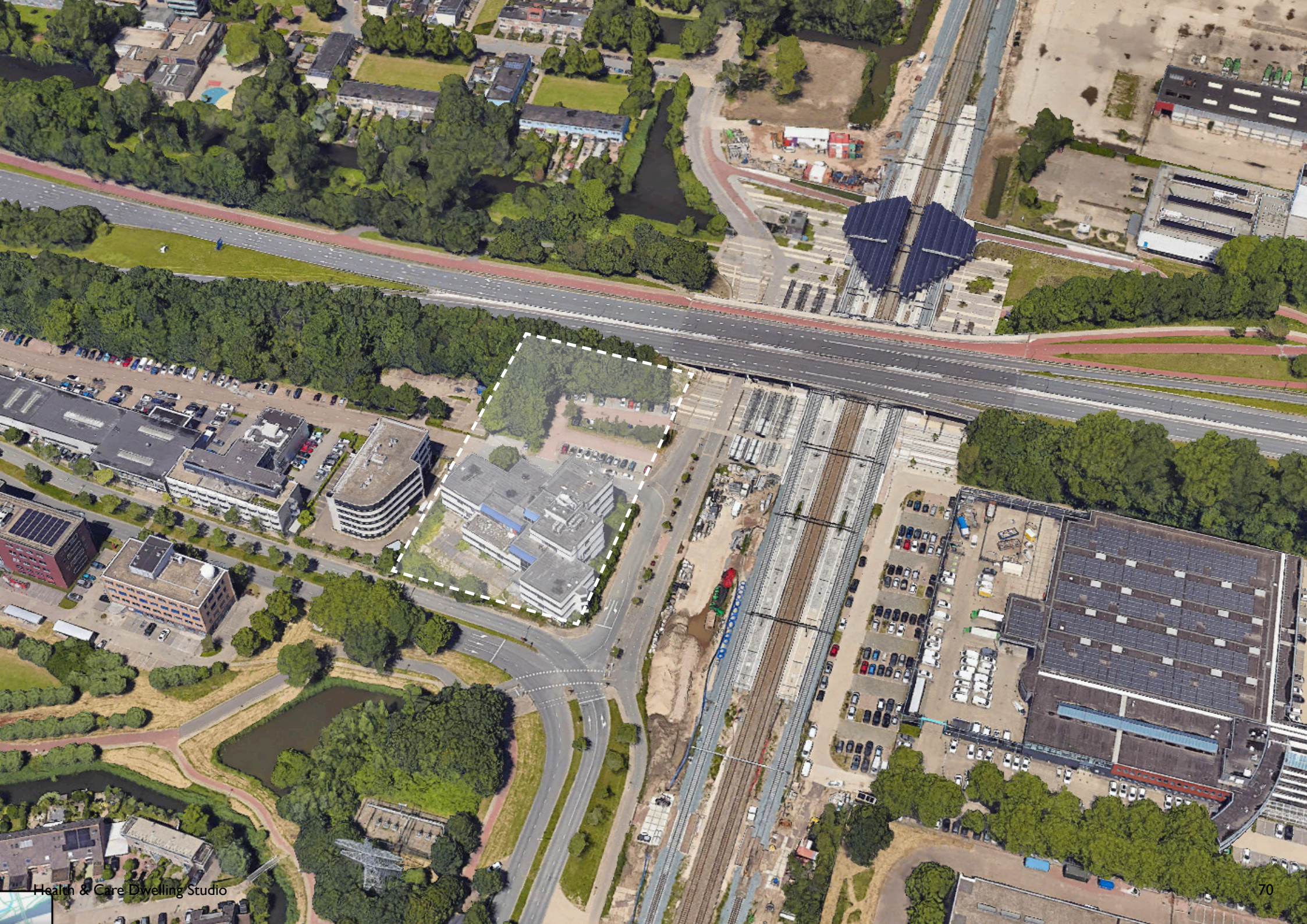
**AMBITIONS**

**Expansion of  
the TU Delft**

**A  
meeting  
space/hub**

**Appartment  
complex**

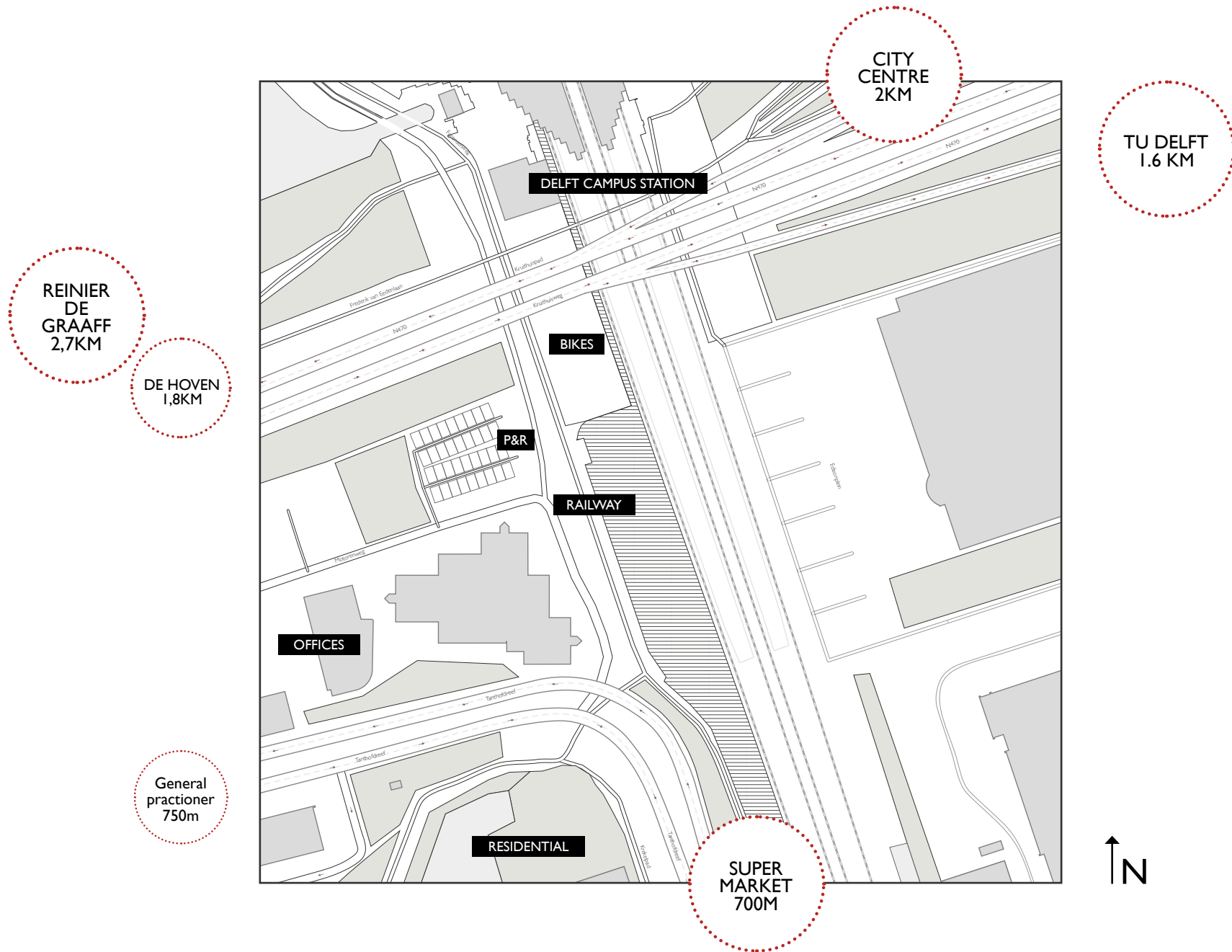




# Site ANALYSIS

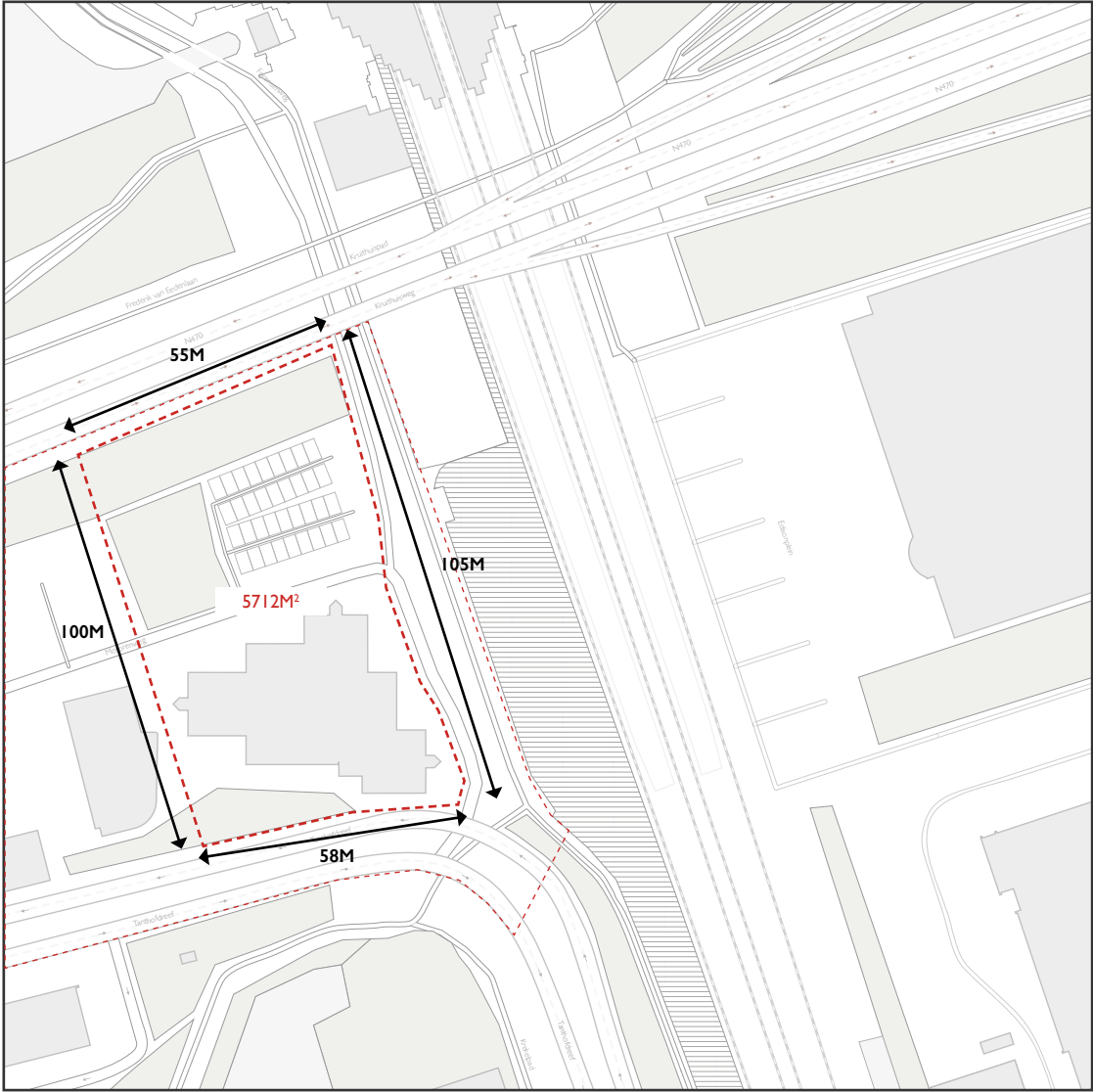


# Site ANALYSIS

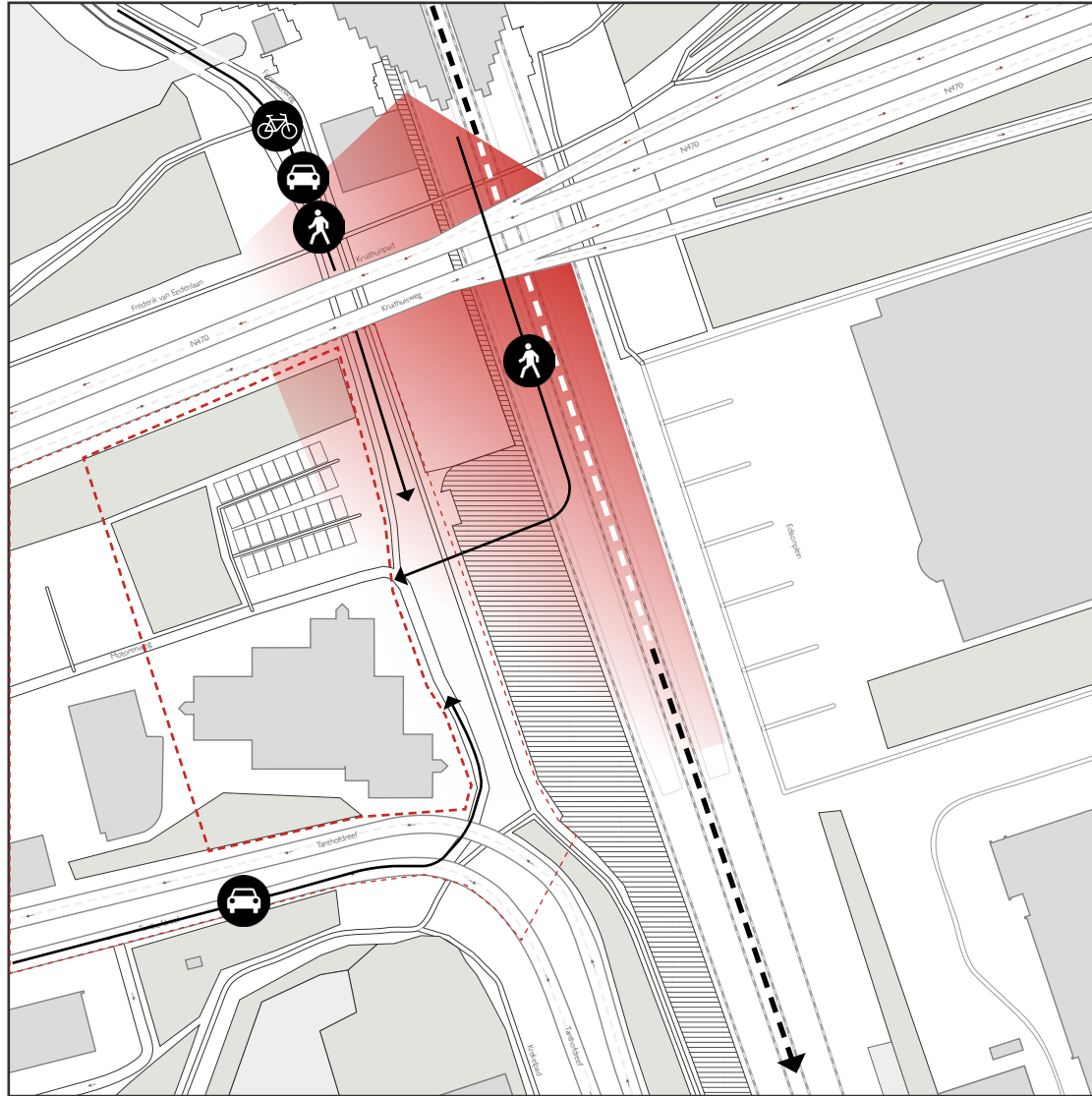




# Site SPECIFICATIONS



# Site TRANSPORT



**1. RESEARCH**

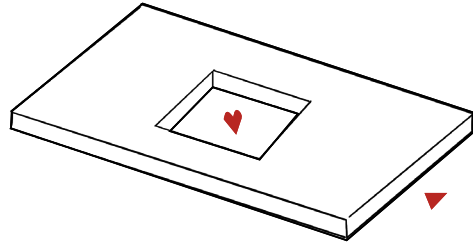
**2. DESIGN BRIEF**

**3. CONCEPT**

**3. SITE**

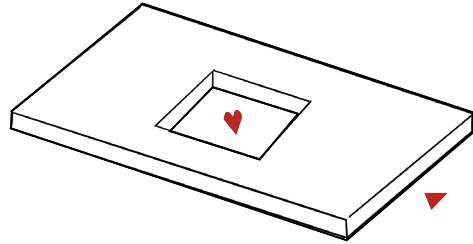
**5. THE ACADEMY**

The Academy  
**CONCEPT SHAPE**

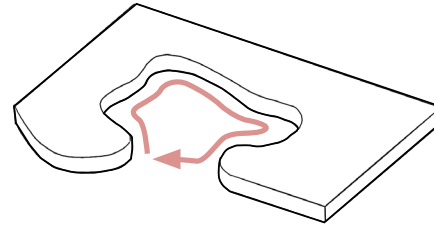


**1. 'Inner world' vs  
'outer world'**

The Academy  
**CONCEPT SHAPE**

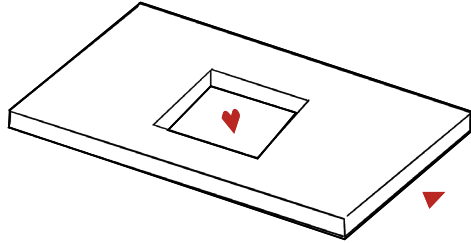


**1. 'Inner world' vs  
'outer world'**

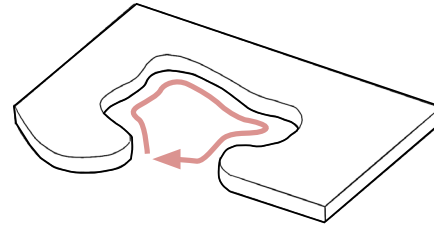


**2. Safe & clear perimeters**

The Academy  
**CONCEPT SHAPE**

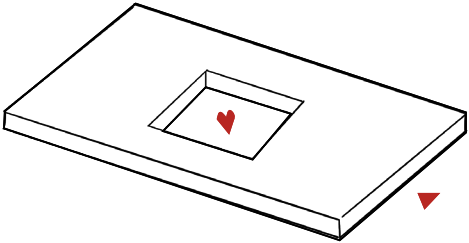


**1. 'Inner world' vs  
'outer world'**

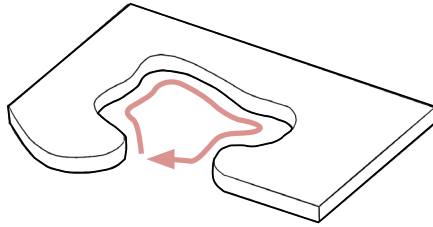


**2. Safe & clear perimeters**

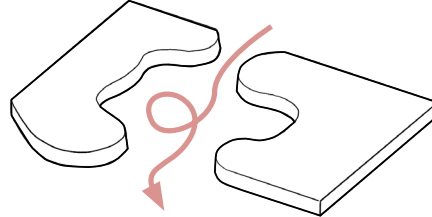
The Academy  
**CONCEPT SHAPE**



**1. 'Inner world' vs  
'outer world'**

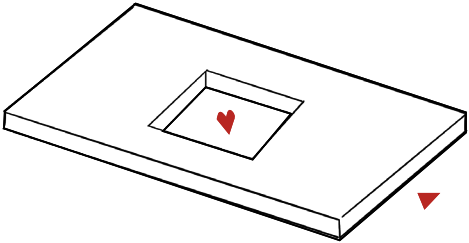


**2. Safe & clear perimeters**

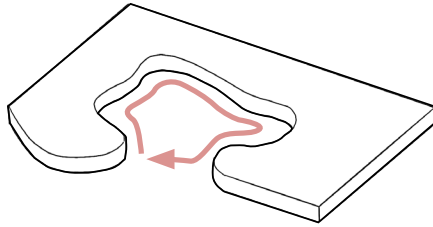


**3. Engaging & healthy  
environments**

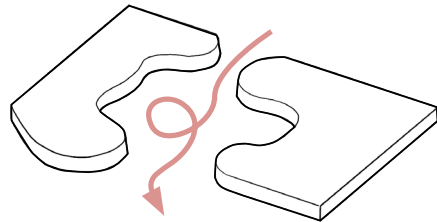
The Academy  
**CONCEPT SHAPE**



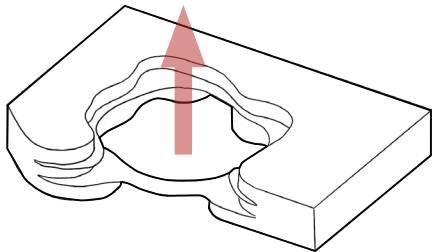
**1. 'Inner world' vs  
'outer world'**



**2. Safe & clear perimeters**



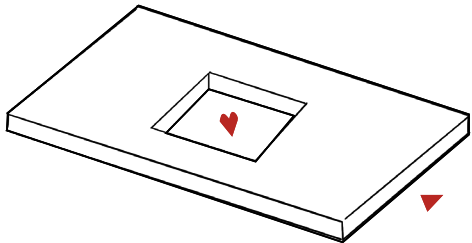
**3. Engaging & healthy  
environments**



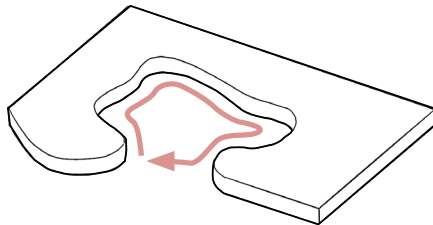
**4. Integration of living and  
learning**



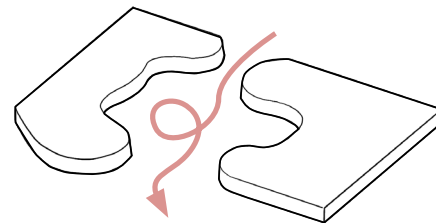
The Academy  
**CONCEPT SHAPE**



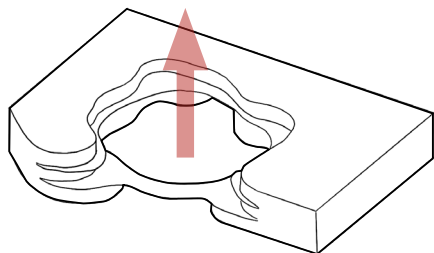
**1. 'Inner world' vs  
'outer world'**



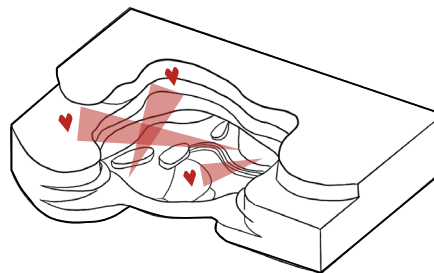
**2. Safe & clear perimeters**



**3. Engaging & healthy  
environments**

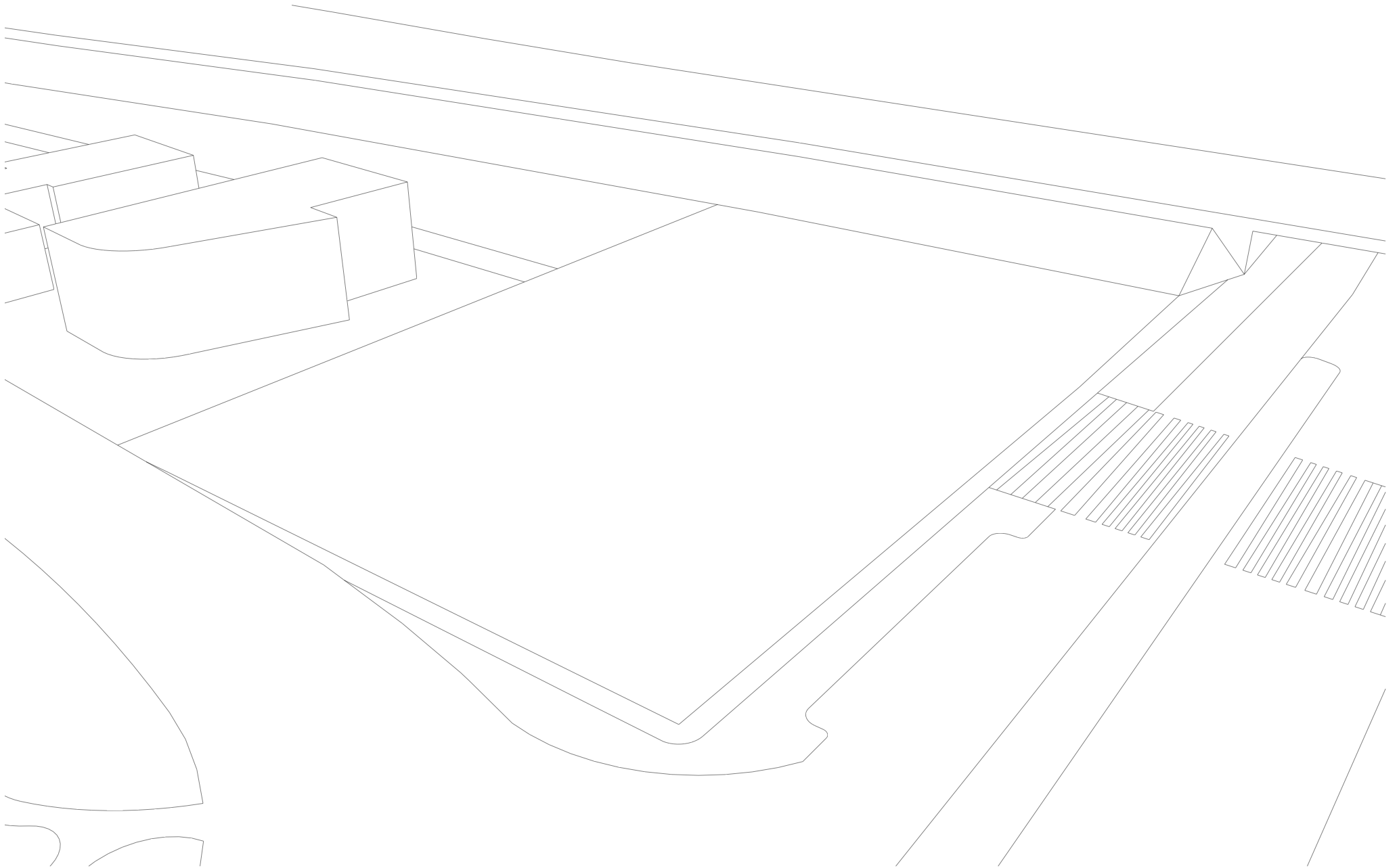


**4. Integration of living and  
learning**

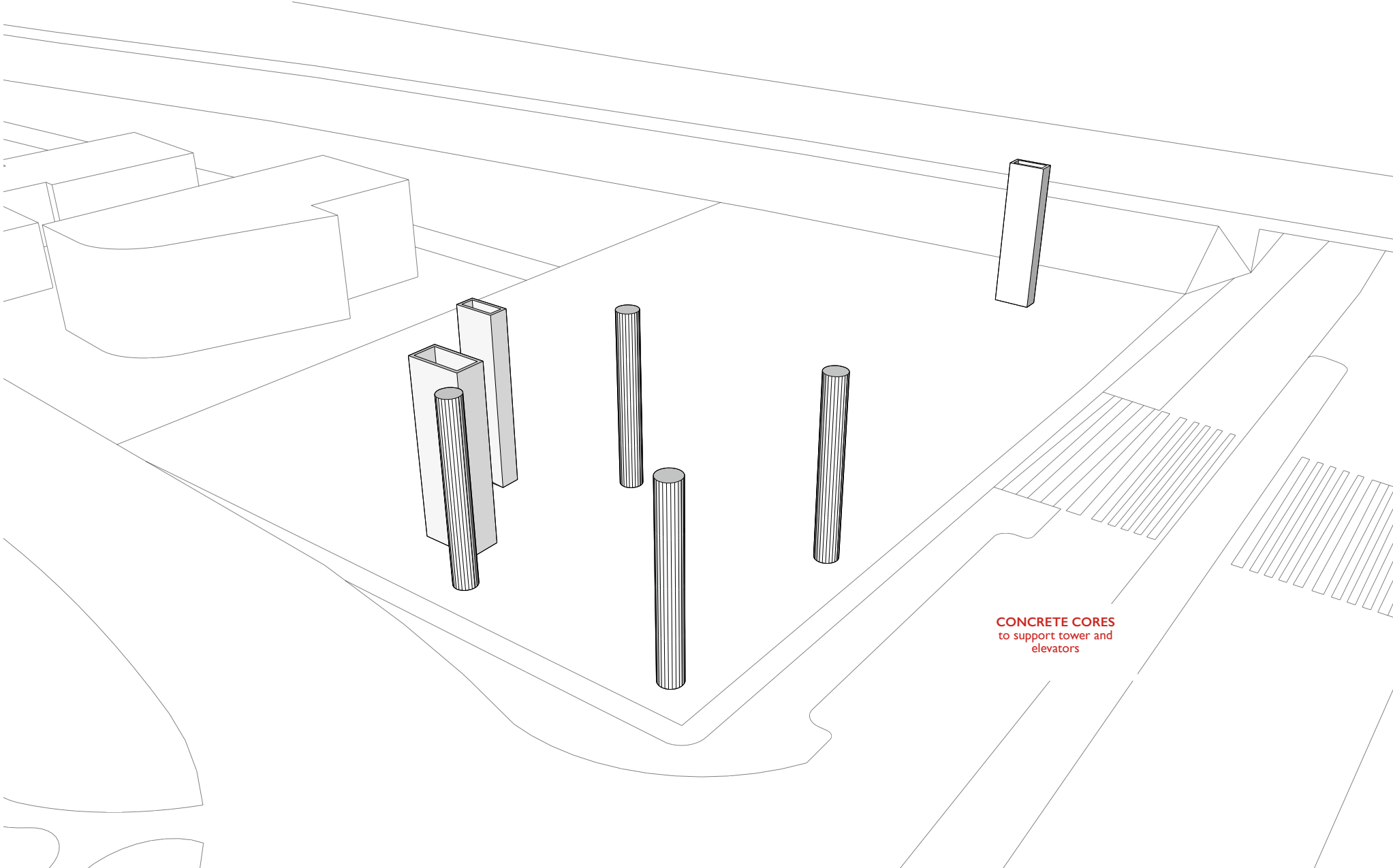


**5. 'Art as the red thread'**

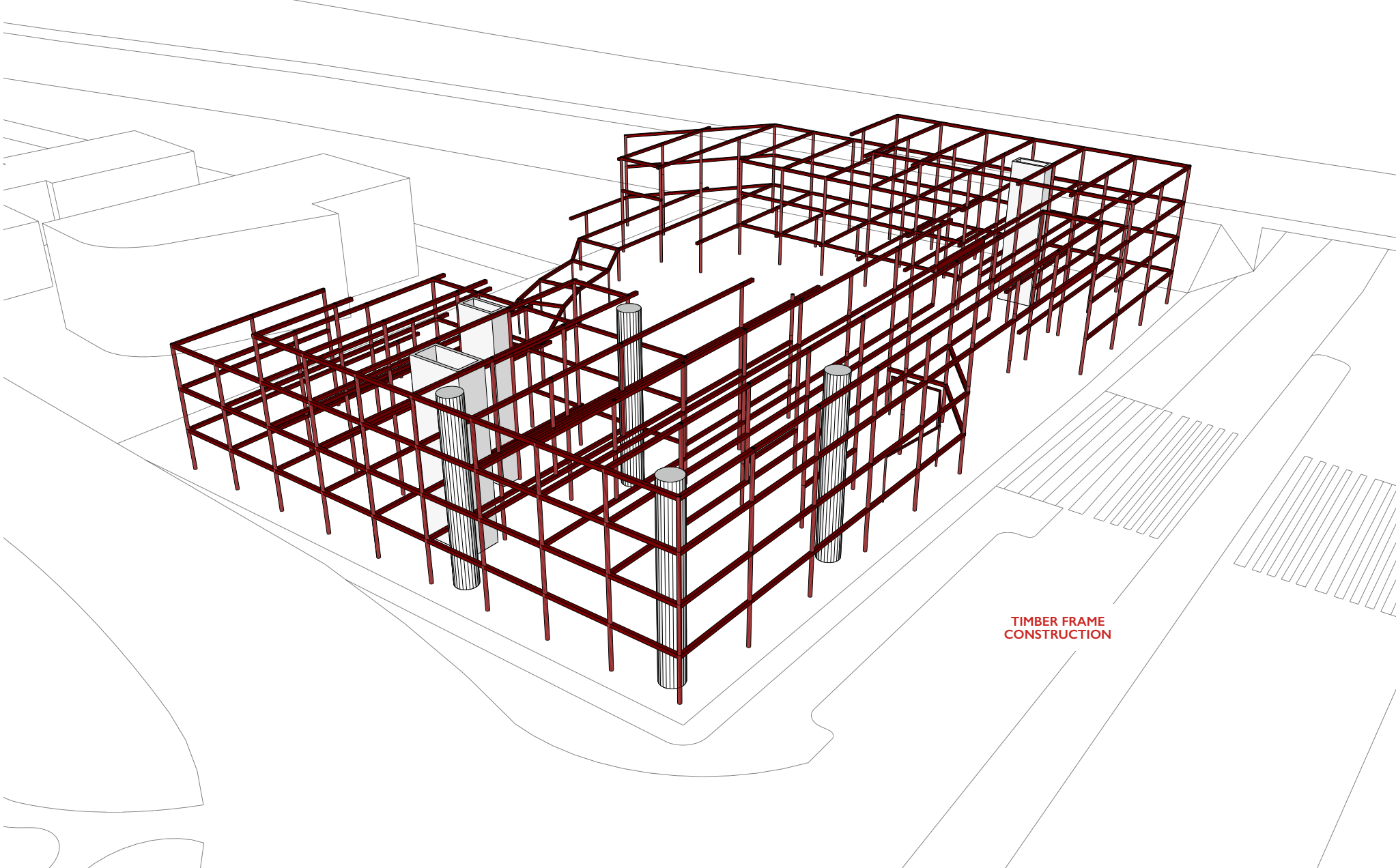
# The Academy CONSTRUCTION



# The Academy CONSTRUCTION

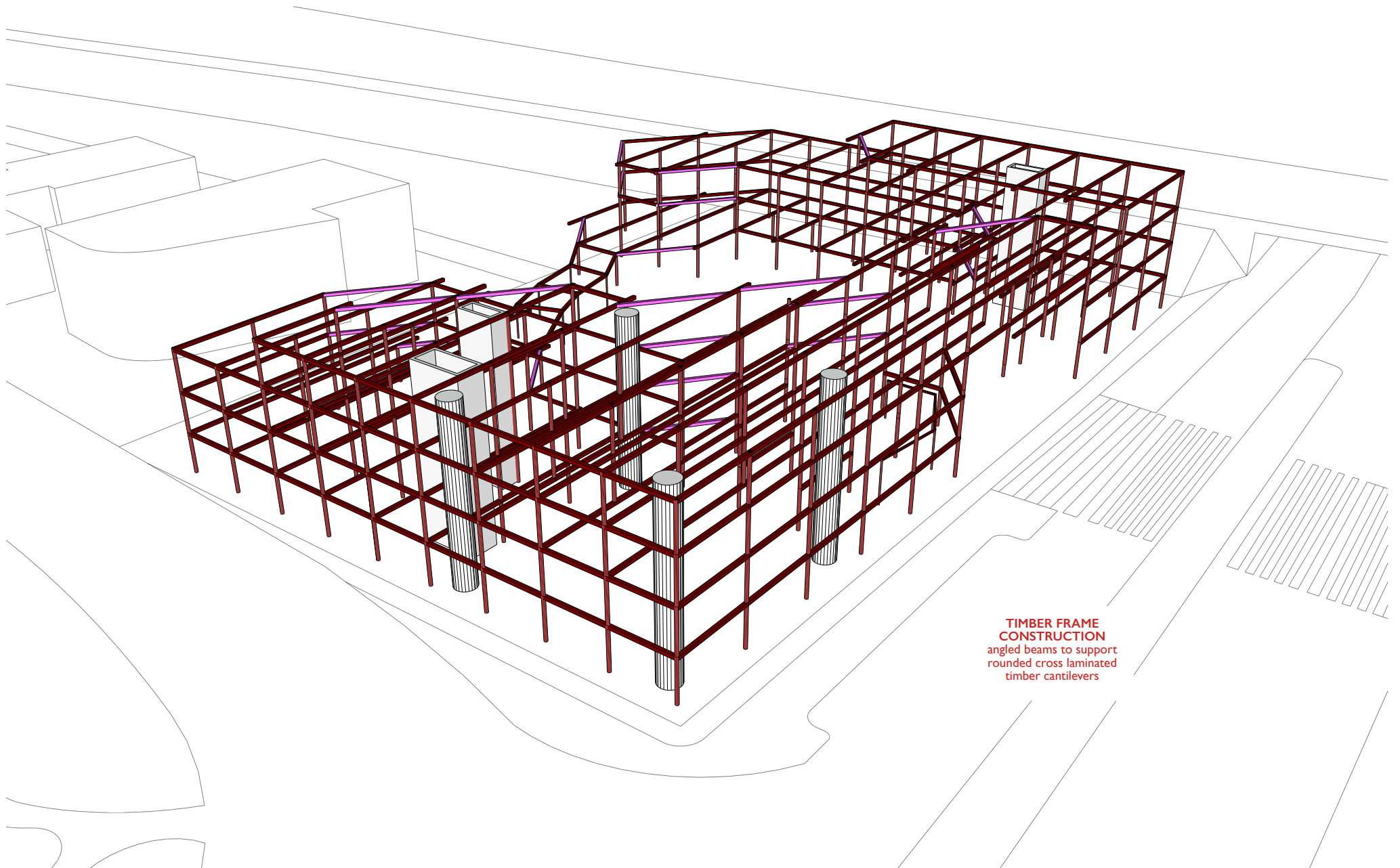


# The Academy CONSTRUCTION



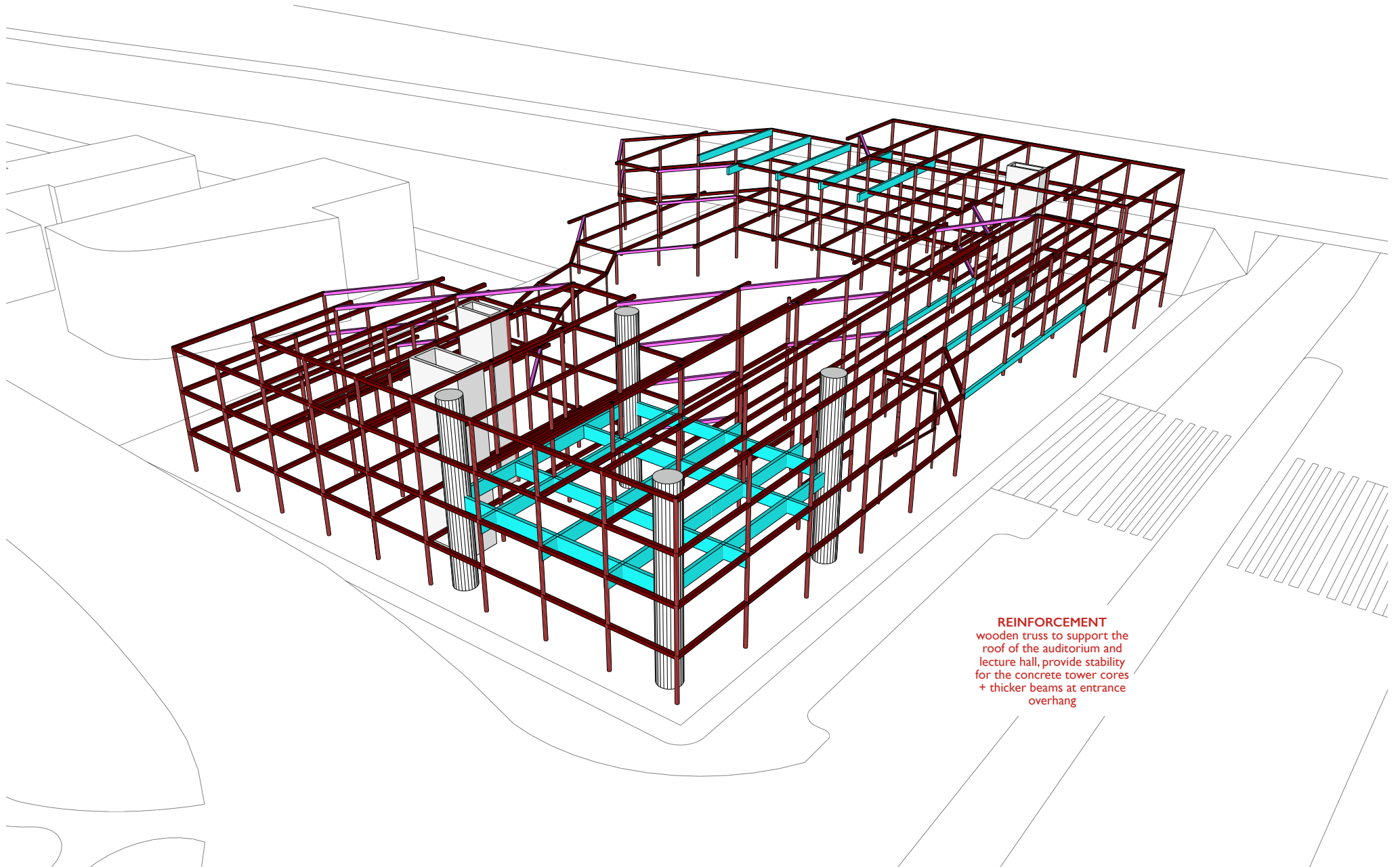
TIMBER FRAME  
CONSTRUCTION

# The Academy CONSTRUCTION



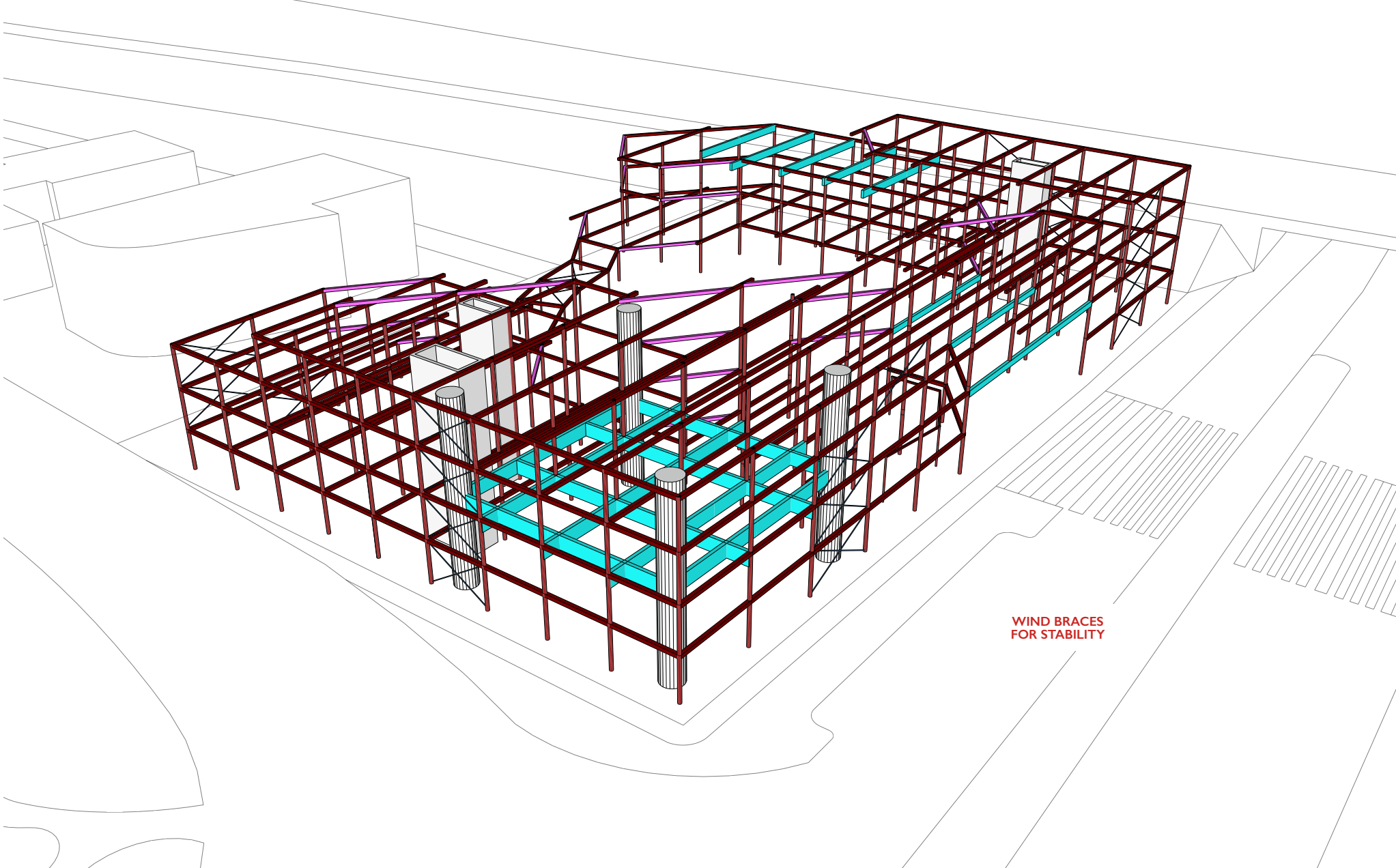
**TIMBER FRAME  
CONSTRUCTION**  
angled beams to support  
rounded cross laminated  
timber cantilevers

# The Academy CONSTRUCTION

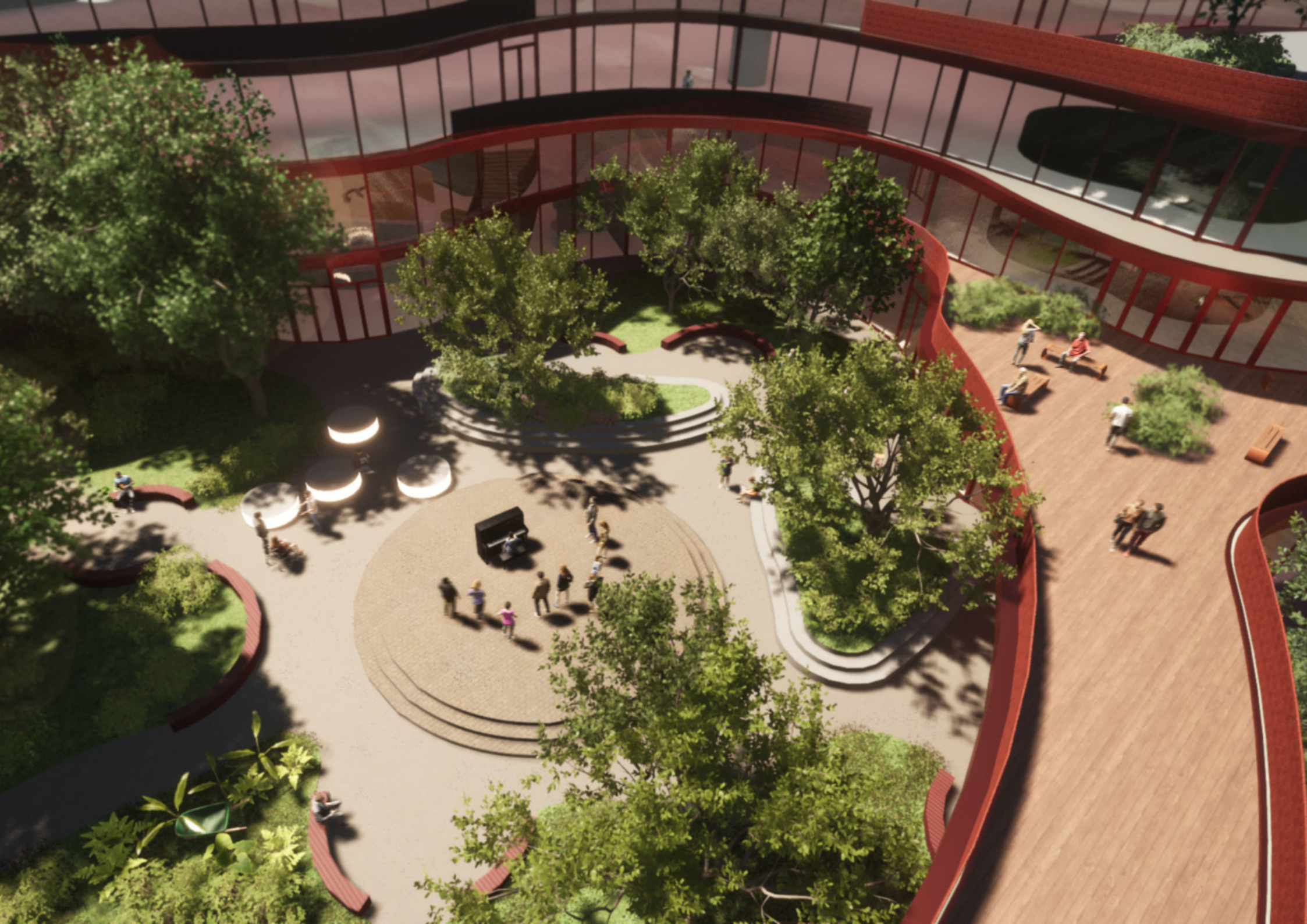


**REINFORCEMENT**  
wooden truss to support the  
roof of the auditorium and  
lecture hall, provide stability  
for the concrete tower cores  
+ thicker beams at entrance  
overhang

# The Academy CONSTRUCTION



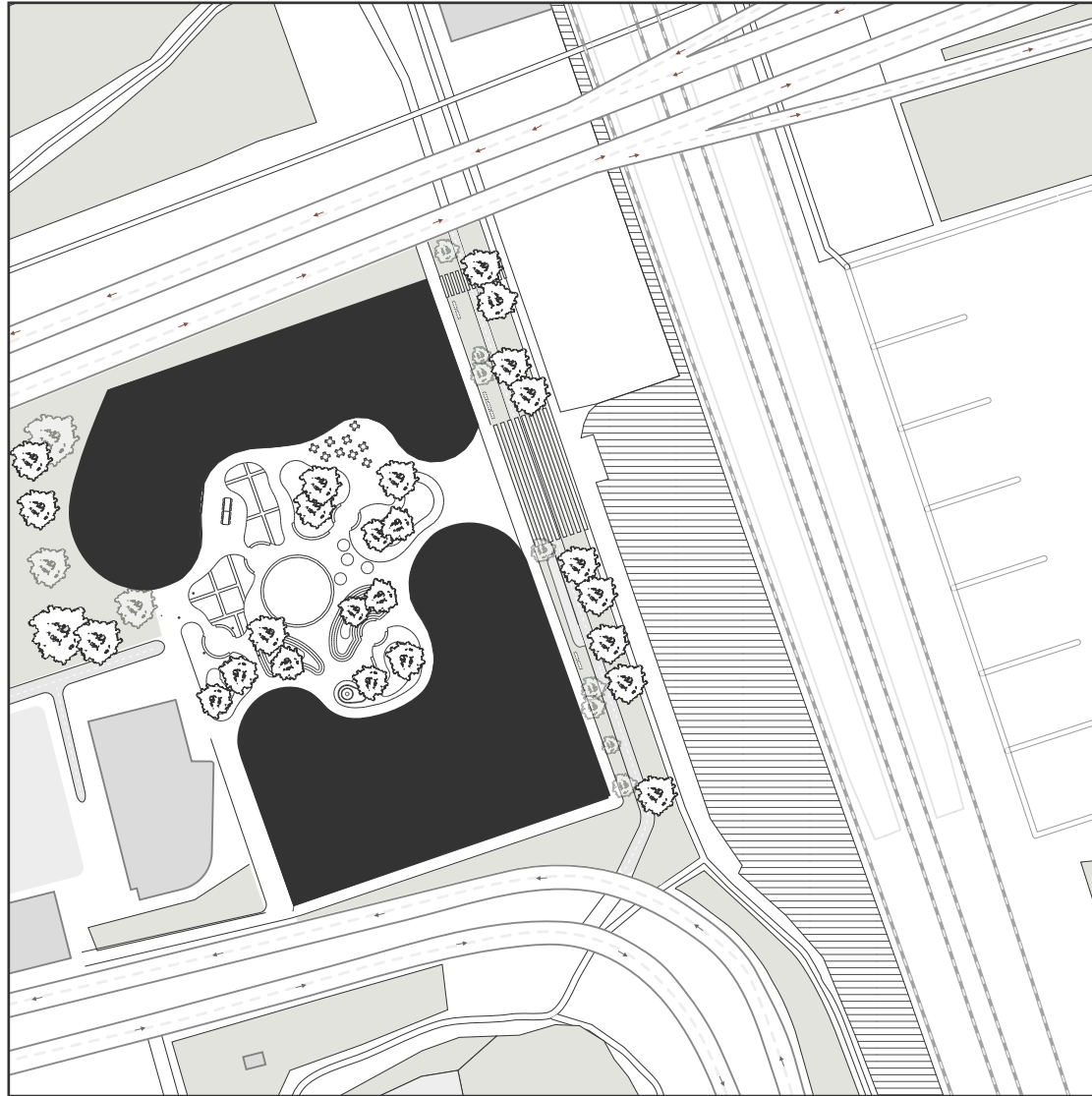
WIND BRACES  
FOR STABILITY



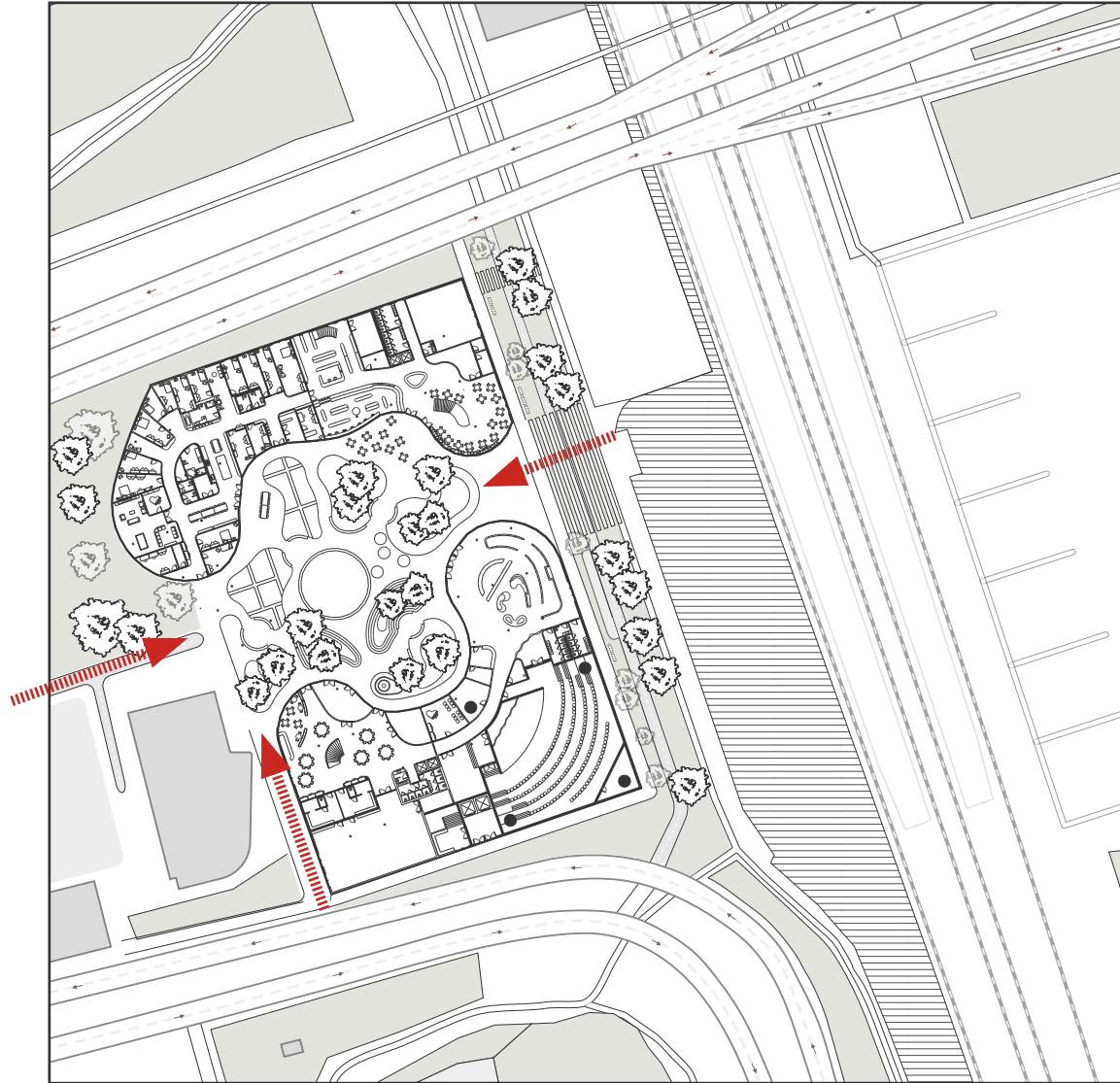




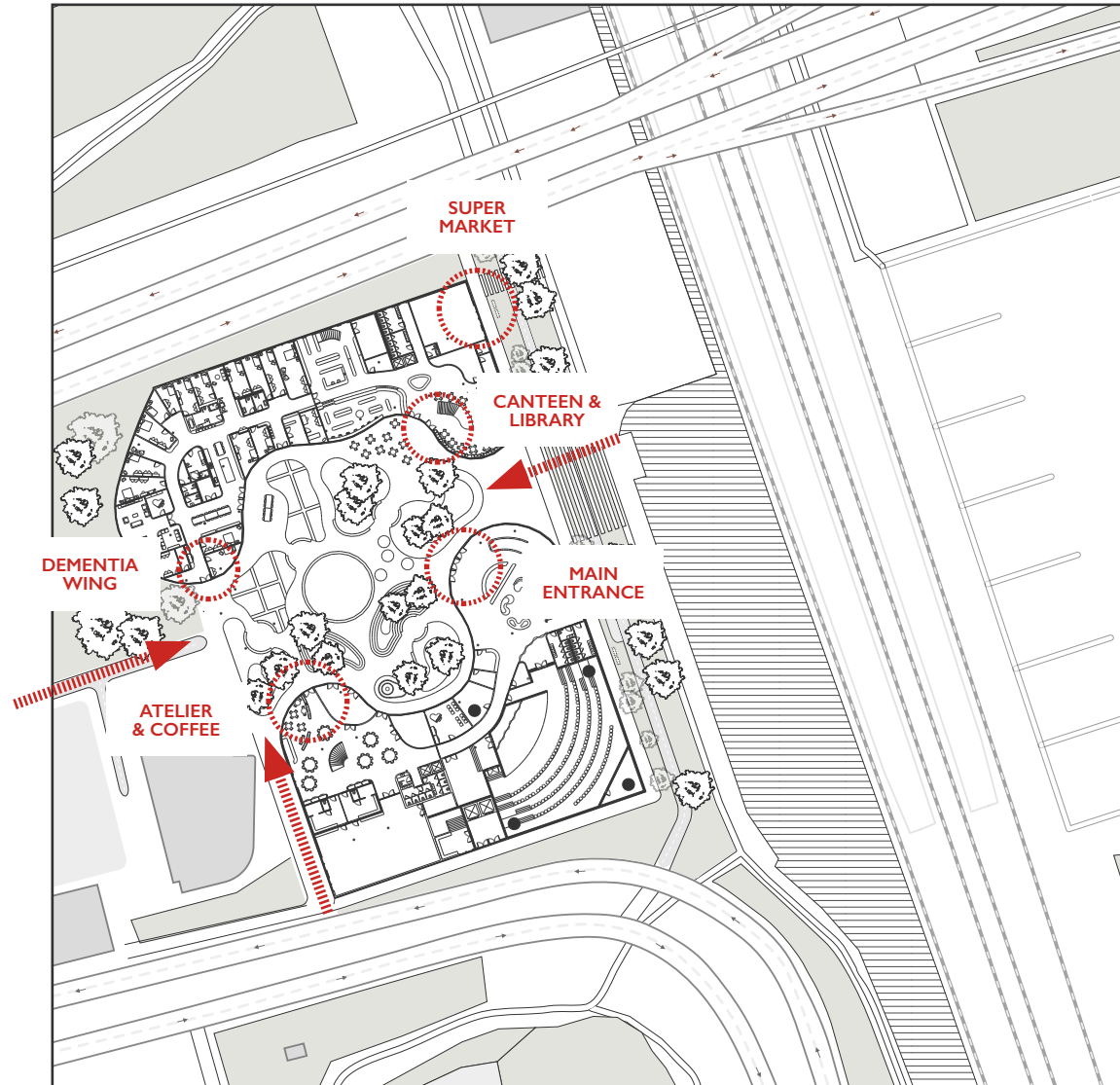
# The Academy MASTERPLAN



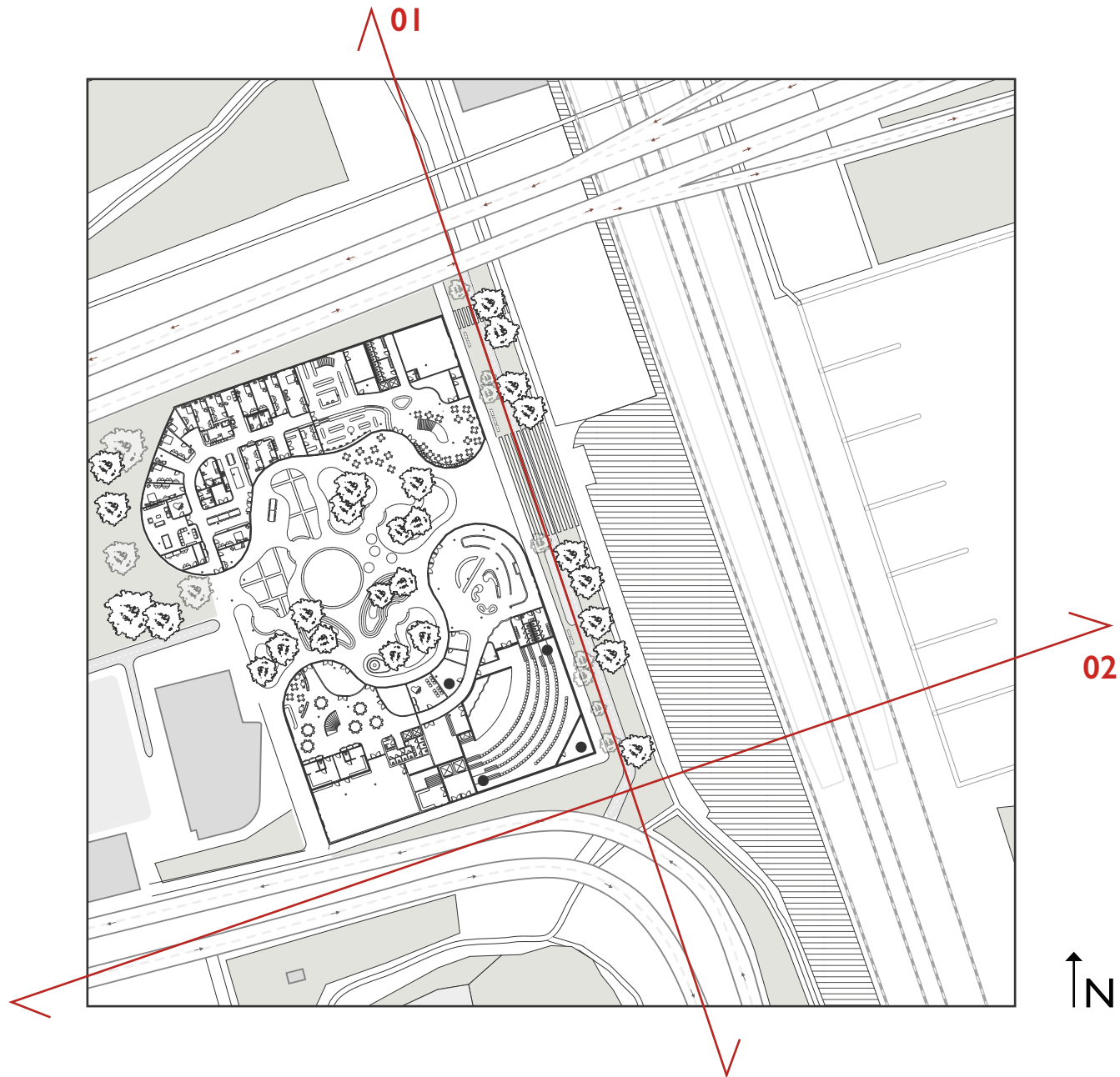
# The Academy MASTERPLAN ROUTING



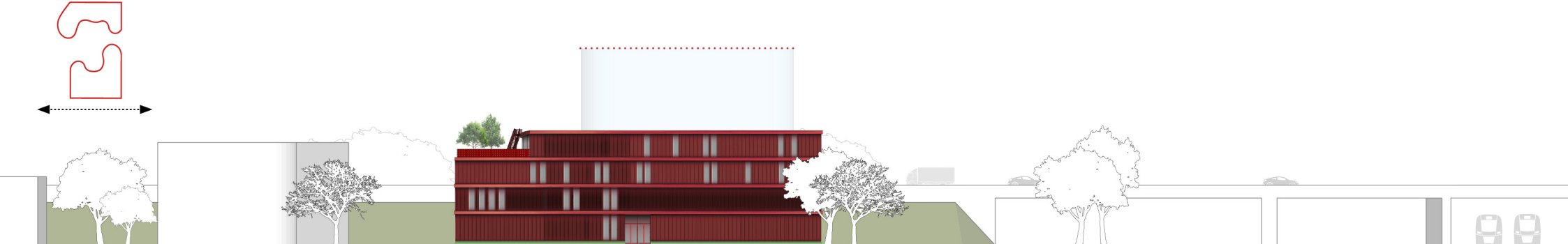
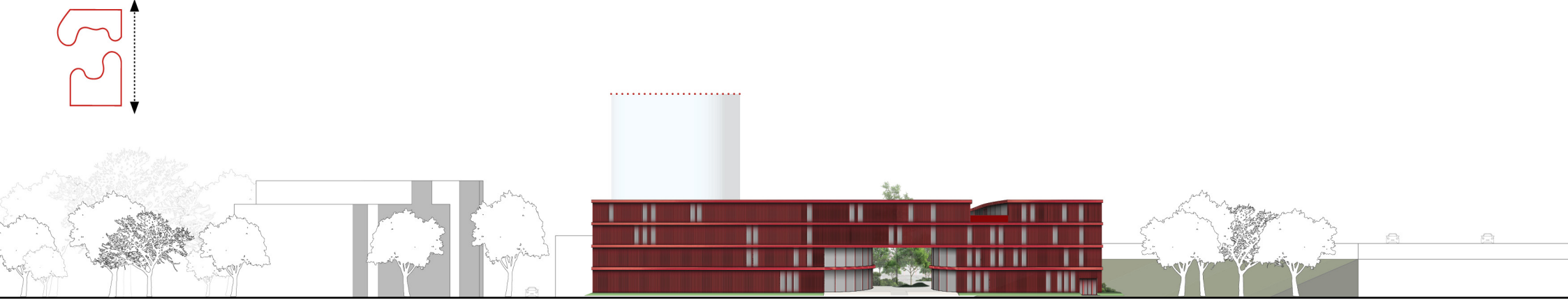
# The Academy MASTERPLAN ROUTING / ENTRANCES



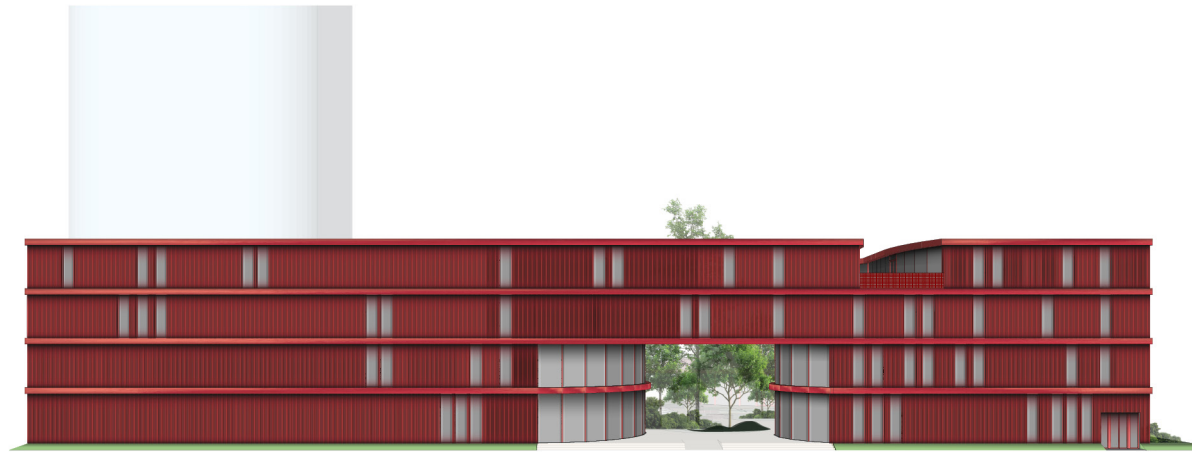
# The Academy MASTERPLAN ROUTING / ENTRANCES



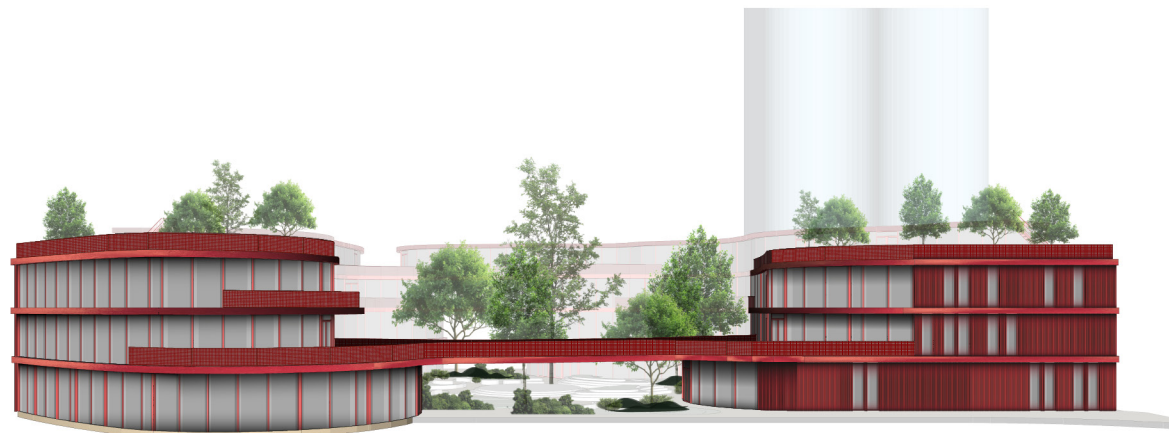
# The Academy URBAN SECTION



# The Academy FACADES

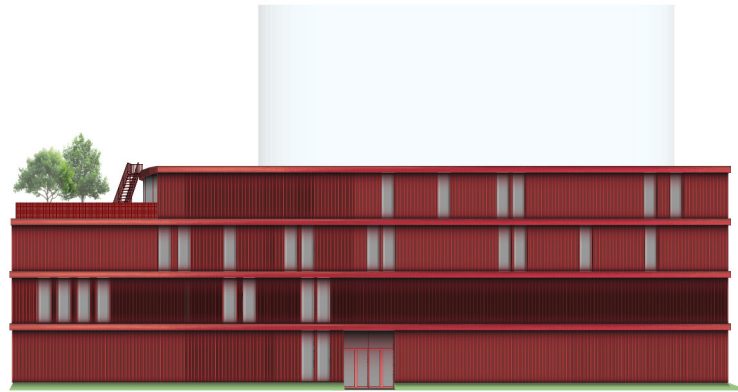


EAST  
FACADE

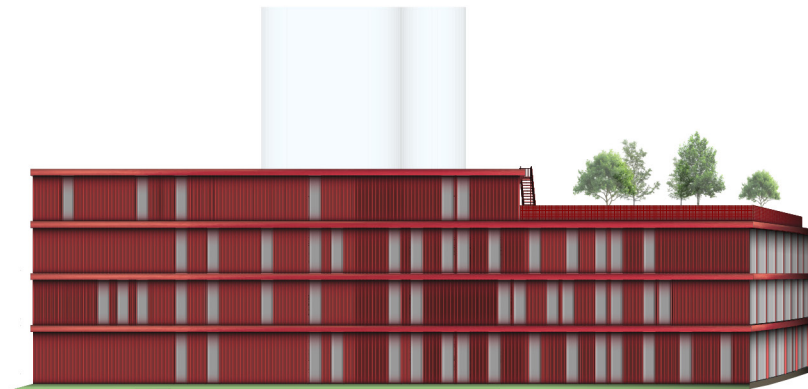


WEST  
FACADE

# The Academy FACADES



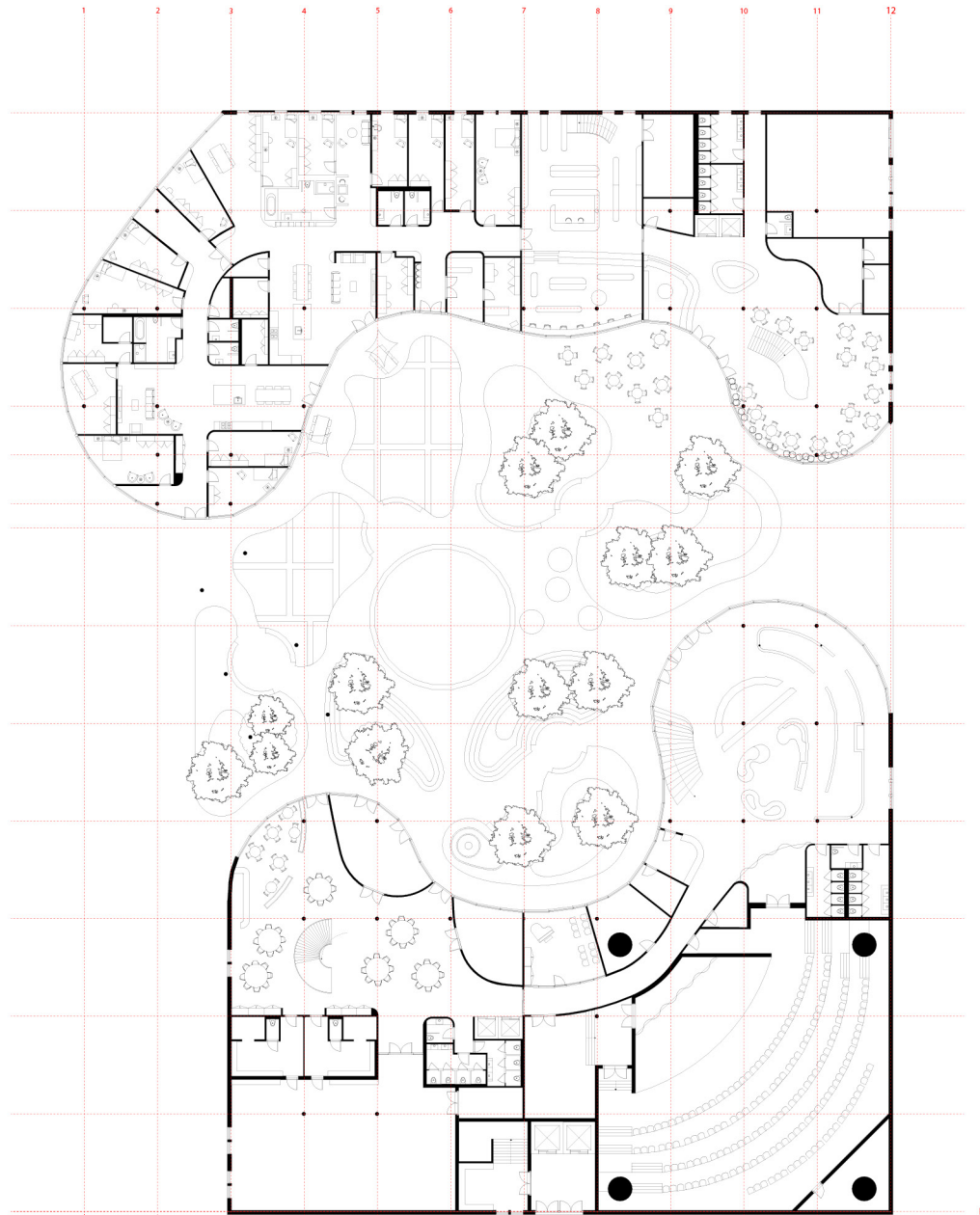
SOUTH  
FACADE



NORTH  
FACADE



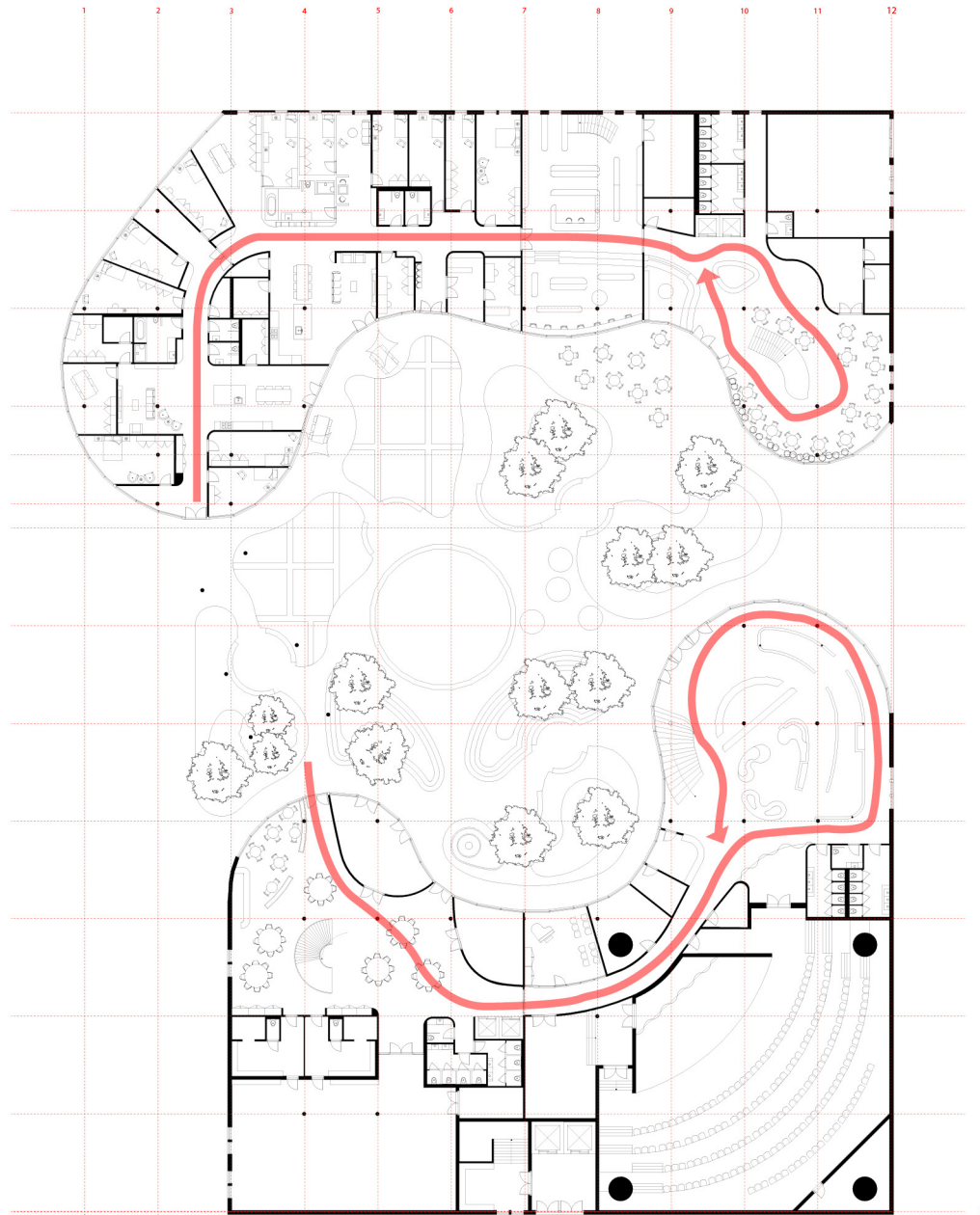
# The Academy PLAN BG



Scale bar 1:200



# The Academy PLAN BG



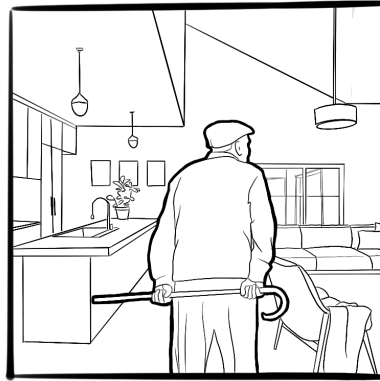
Scale bar 1:200



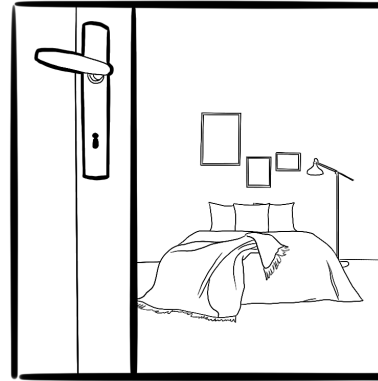
# The Academy PLAN BG - GUIDELINES



1. Easy orientation



5. Clear overview

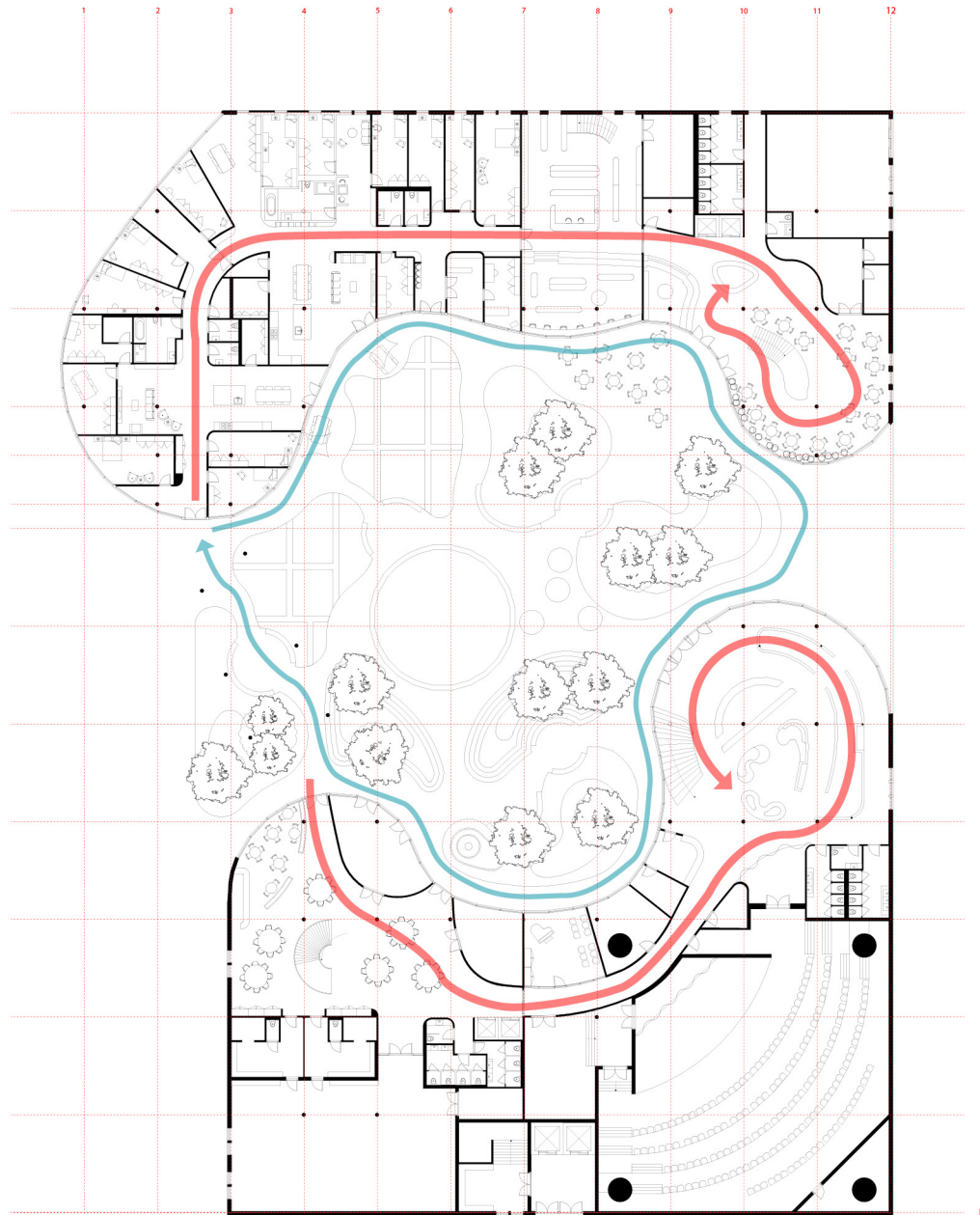


11. Visual access



9. Minimal change / direction

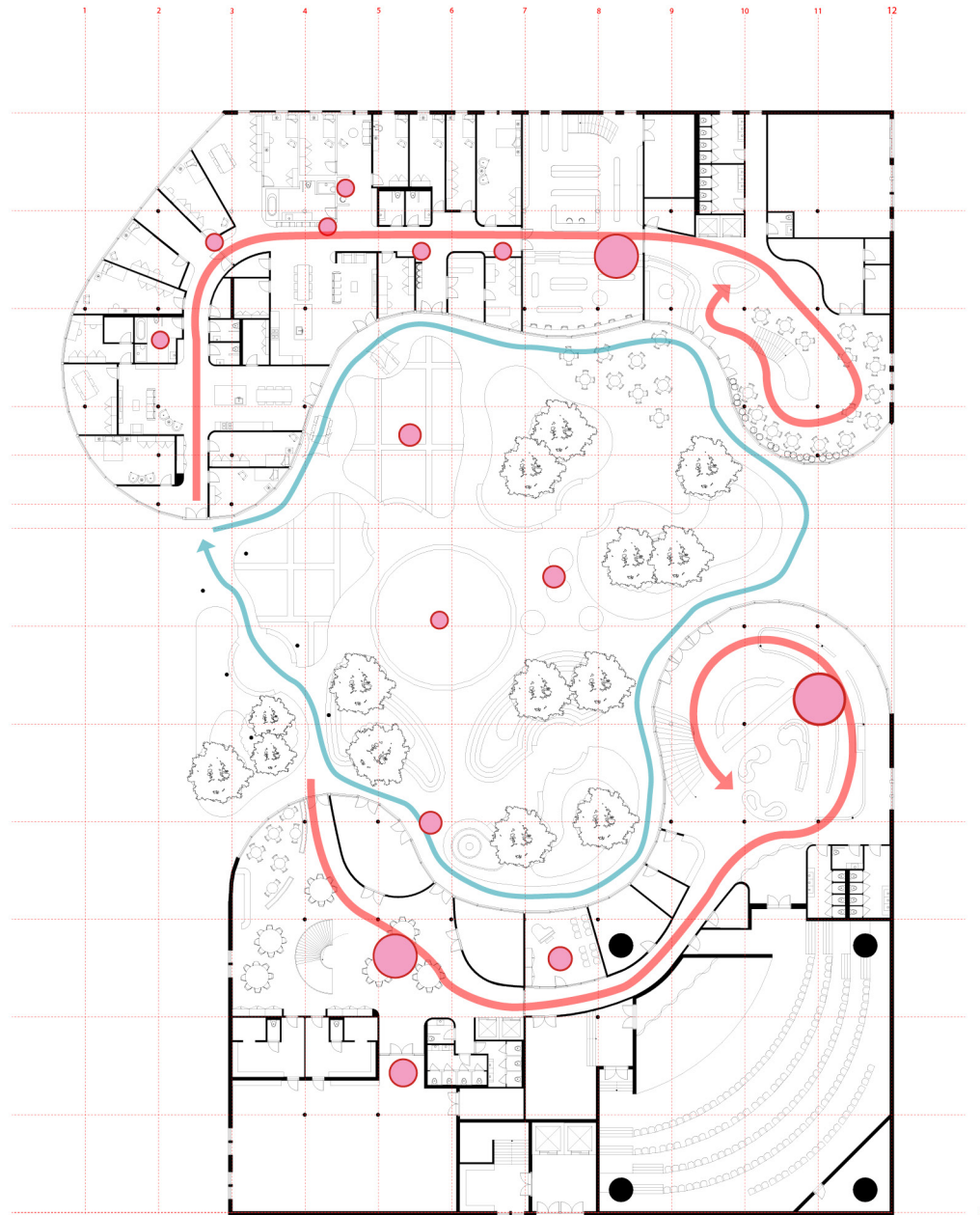
# The Academy PLAN BG



Scale bar 1:200



# The Academy PLAN BG



Scale bar 1:200

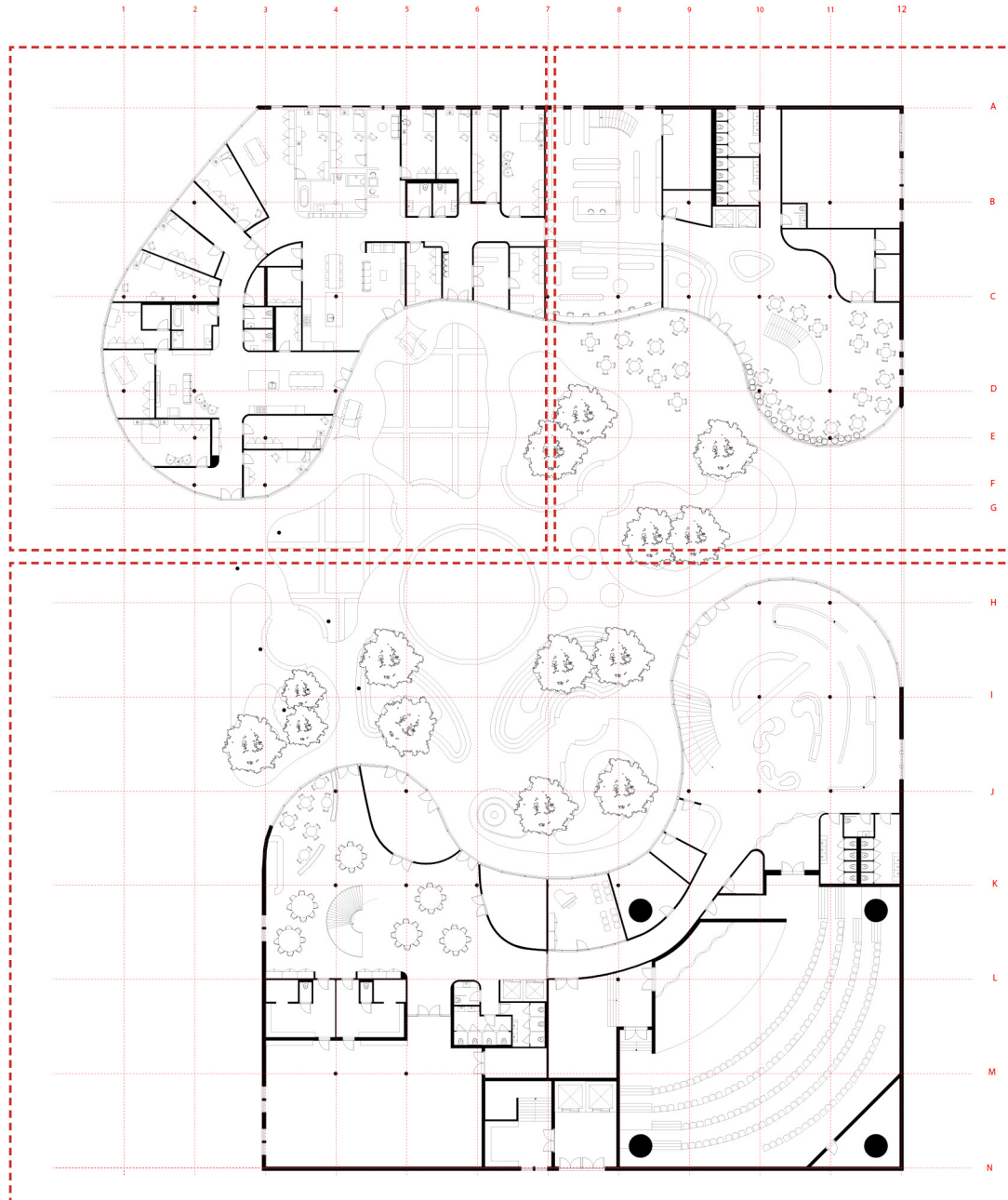


# The Academy PLAN BG

01

02

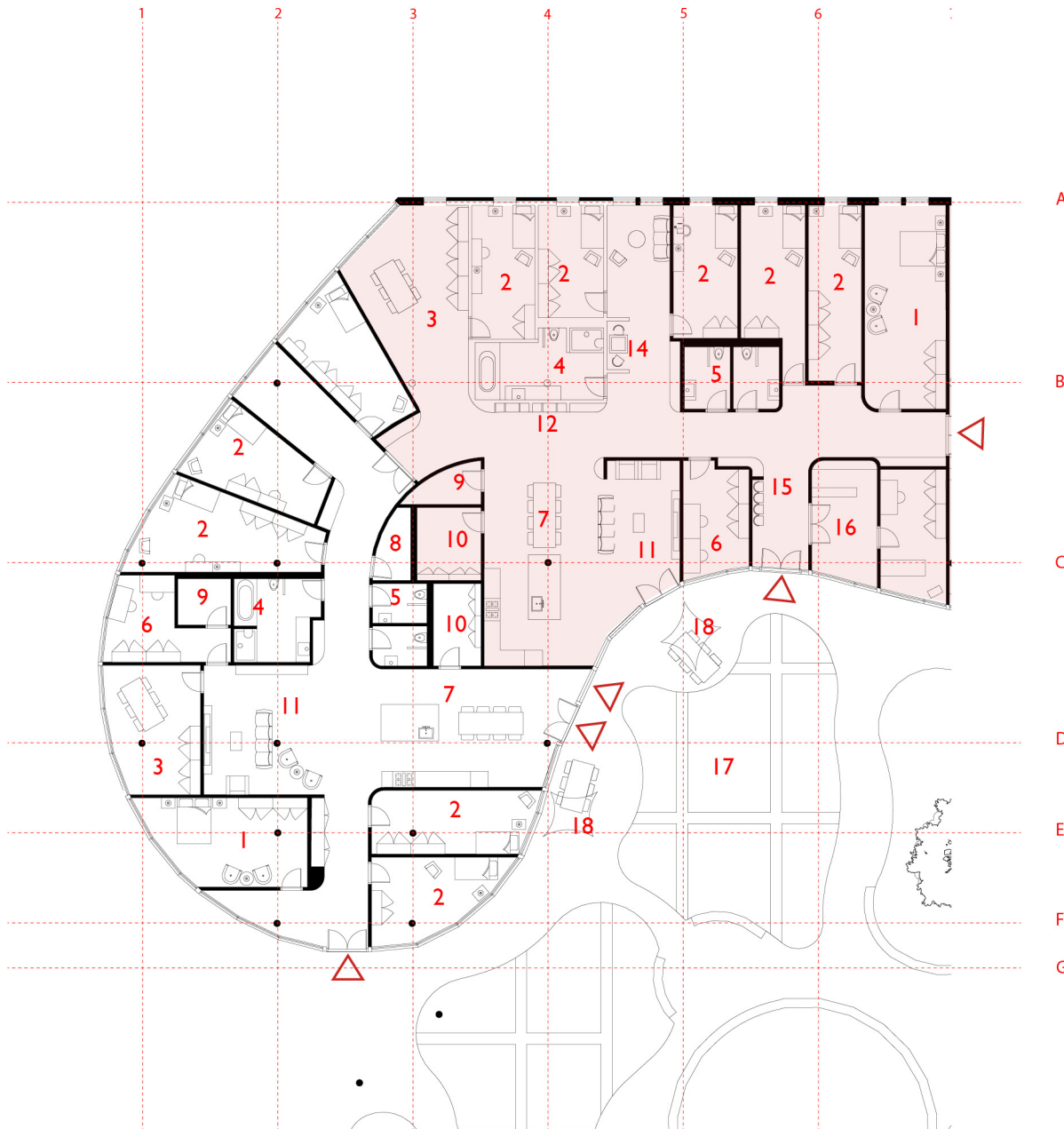
03



Scale bar



# The Academy PLAN BG 01



## LEGEND

Dementia wing (2 separate departments)

- 1. Double bedroom (x2)
- 2. Single bedroom (x10)
- 3. Art (therapy) room
- 4. Bathroom (x2)
- 5. Toilets separate (x4)
- 6. Staff room
- 7. Open kitchen with dining area
- 8. Storage
- 9. Technical area
- 10. Kitchen storage with cooling room
- 11. Living area (TV)
- 13. Separate dining space
- 14. Boardgame area
- 15. Waiting room
- 16. General practitioner
- 17. Vegetable gardens
- 18. Outside dining space

Scale bar



The Academy  
**PLAN BG - GUIDELINES**



4. Balance between  
therapeutic &  
memory spaces



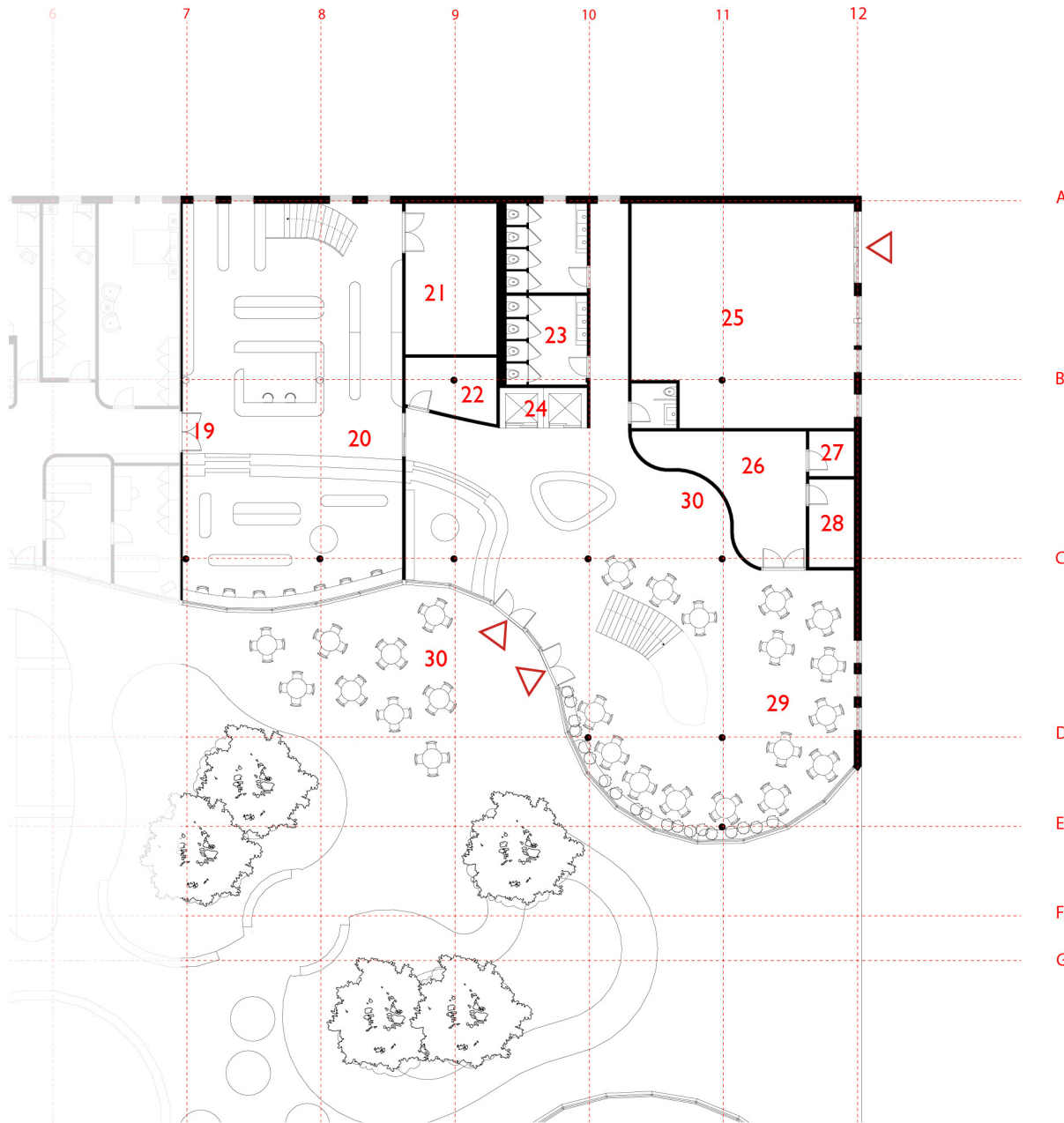
13. Integrate daily  
functions



8. Cluster living  
arrangements



# The Academy PLAN BG 02



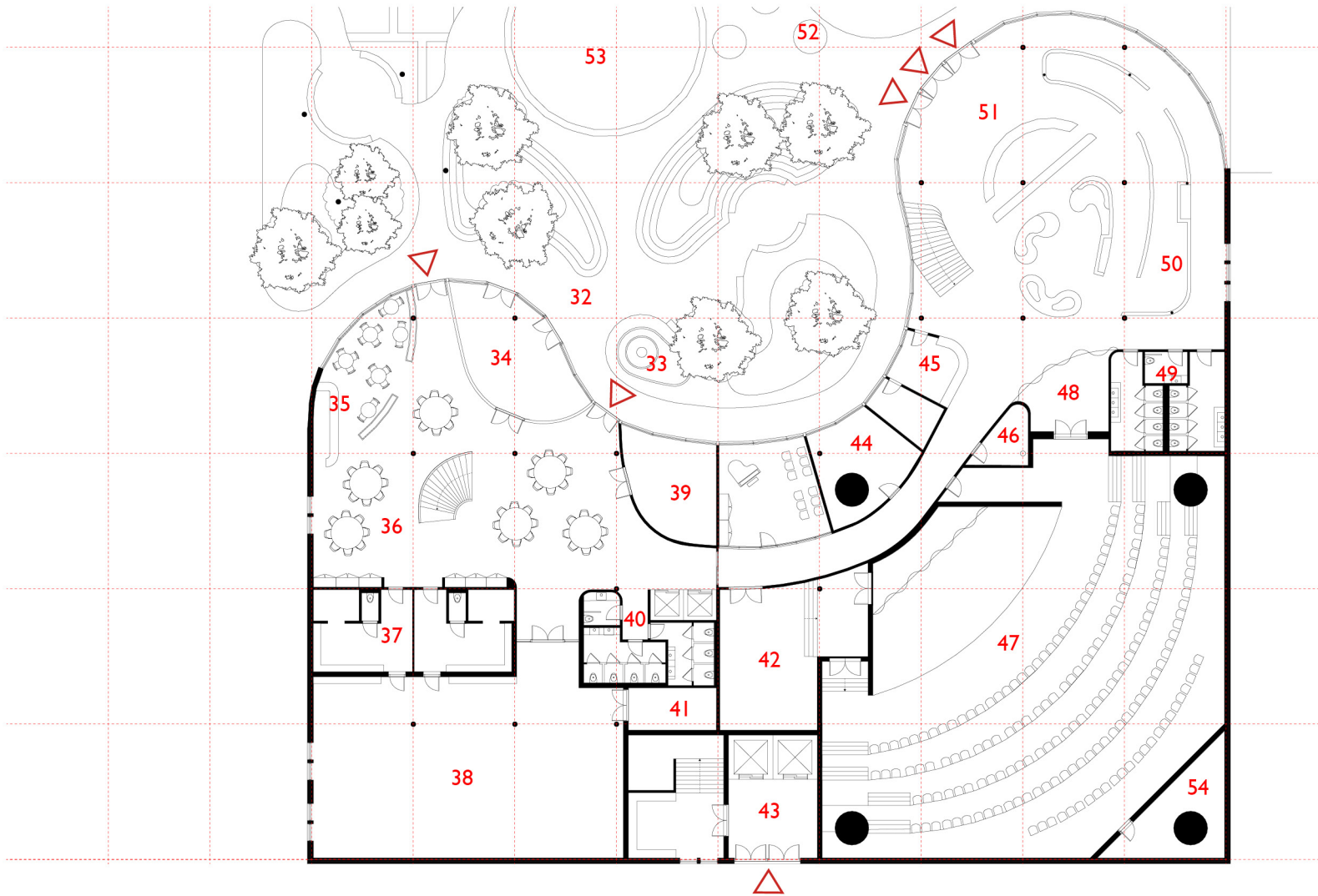
## LEGEND

- 19. Entrance dementia wing
- 20. Open library (1)
- 21. Library storage
- 22. Cleaning storage
- 23. Toilets (x2)
- 24. Elevators
- 25. Supermarket (public)
- 26. Kitchen
- 27. Cooling area
- 28. Dishwashing kitchen
- 29. Canteen
- 30. Buffet
- 31. Outside terrace

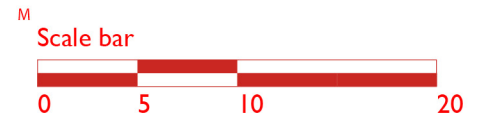
Scale bar



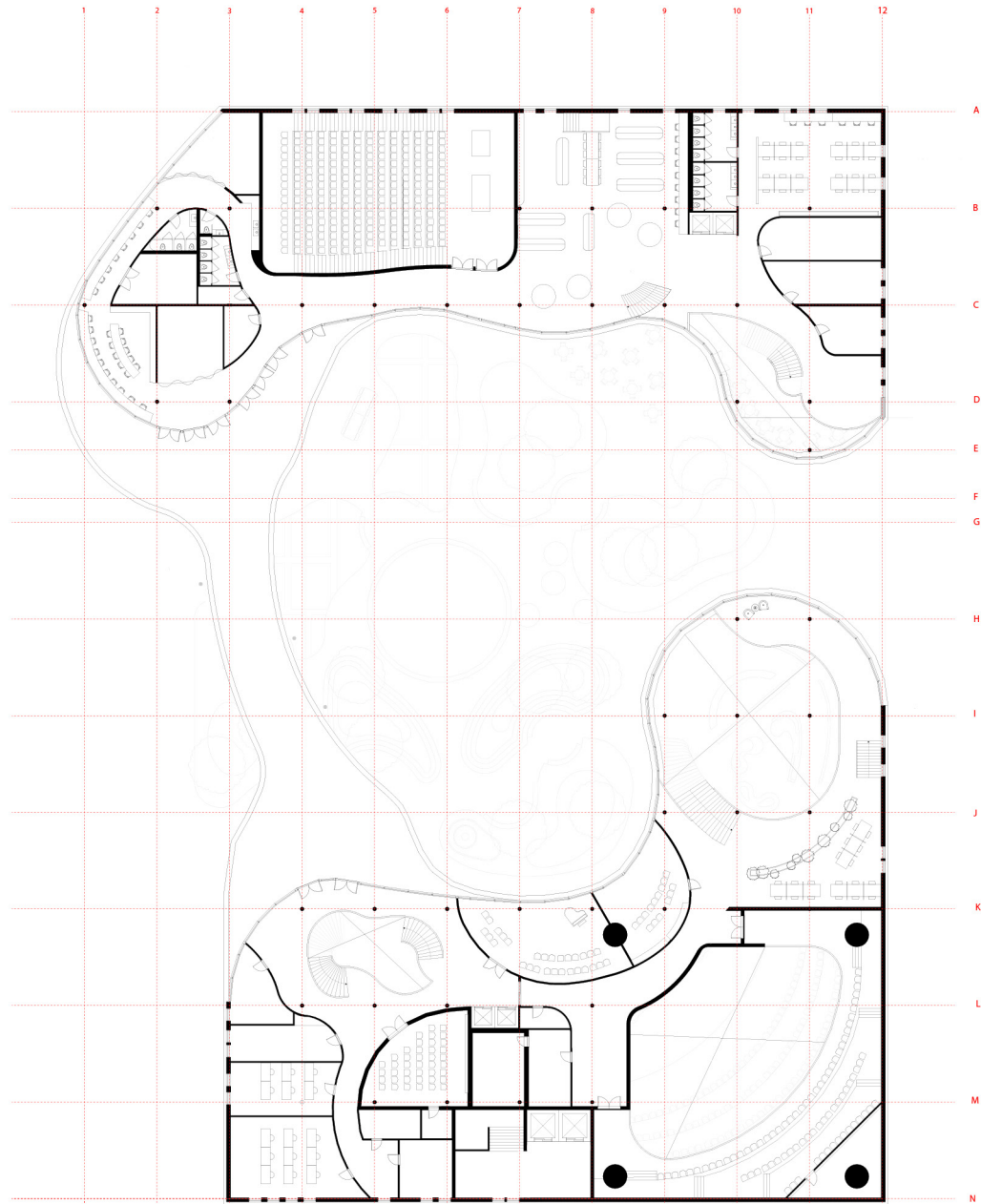
# The Academy PLAN BG 03



- LEGEND**
- 32. Outside painting area
  - 33. Fountain
  - 34. Workshop (woodwork)
  - 35. Coffee corner
  - 36. Open atelier
  - 37. Dressing rooms (x2)
  - 38. Dance hall
  - 39. Workshop (sculpture)
  - 40. Toilets
  - 41. Dance hall storage
  - 42. Theater storage
  - 43. Apartments entrance
  - 44. Technical room
  - 45. Wardrobe
  - 46. Cleaning storage
  - 47. Auditorium
  - 48. Auditorium entrance
  - 49. Toilets
  - 50. Exhibition space
  - 51. Information desk
  - 52. Outside seating area
  - 53. Outdoor stage
  - 54. Auditorium tech space



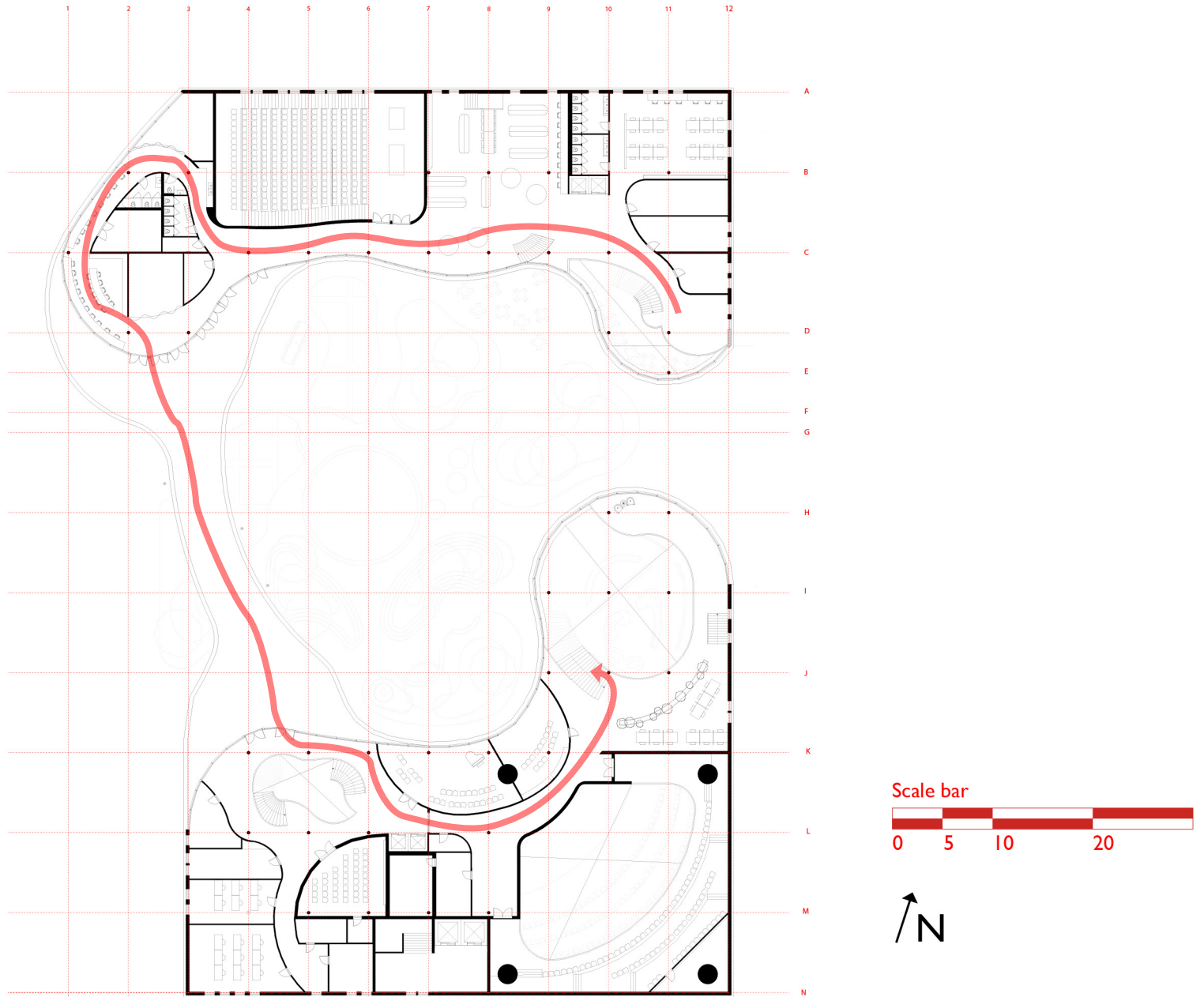
# The Academy PLAN 1ST



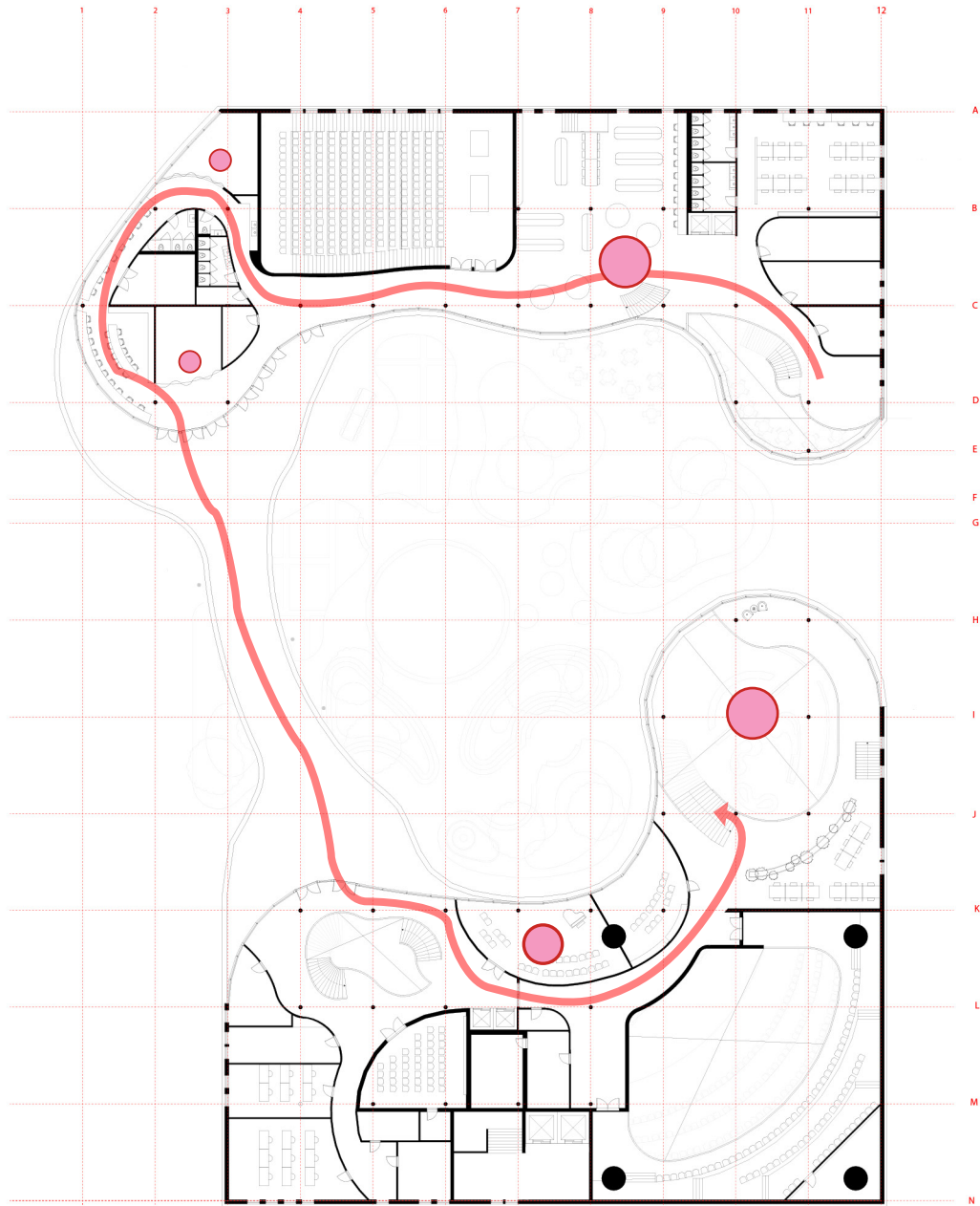
Scale bar



# The Academy PLAN 1ST



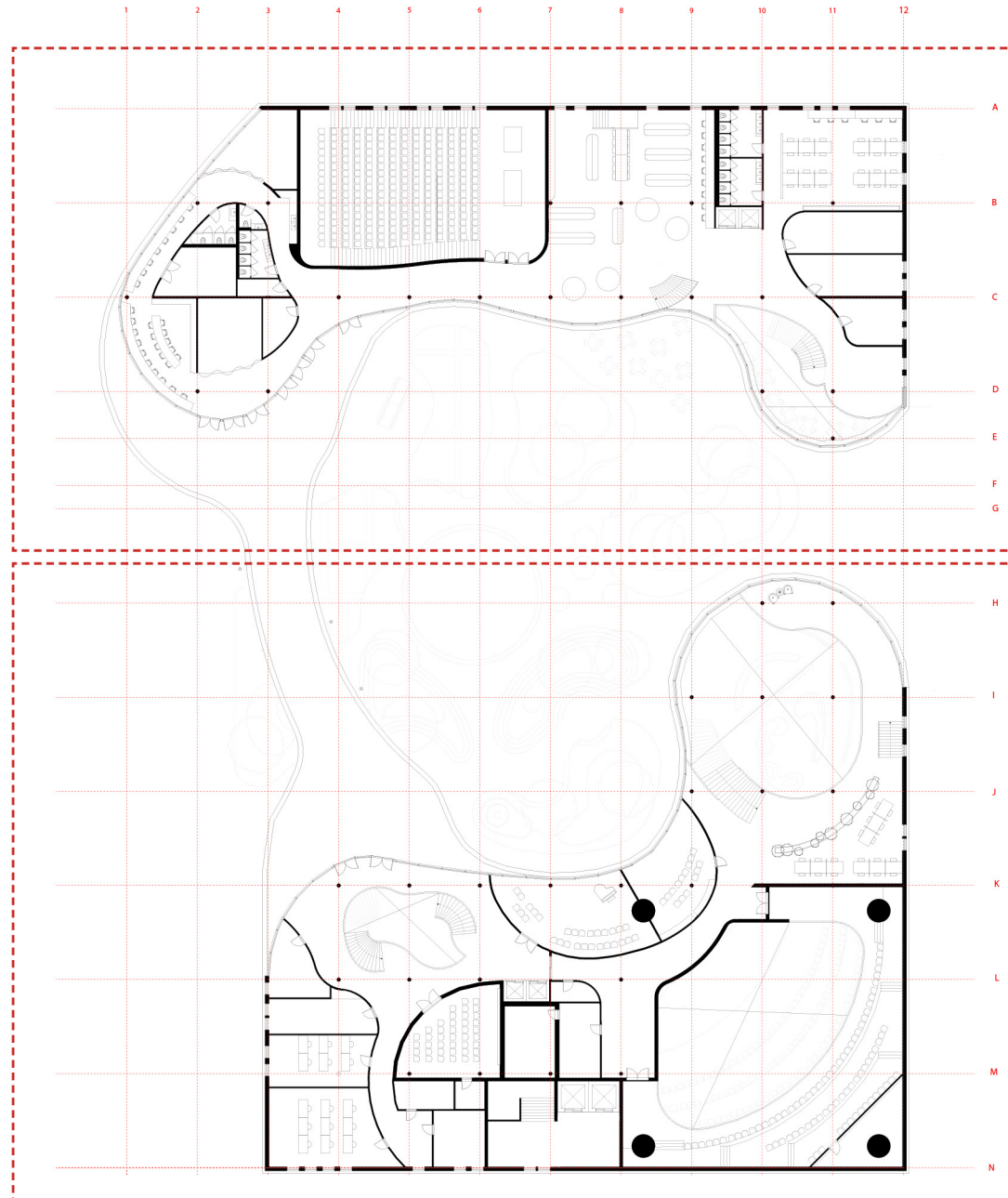
# The Academy PLAN 1ST



Scale bar



# The Academy PLAN 1ST



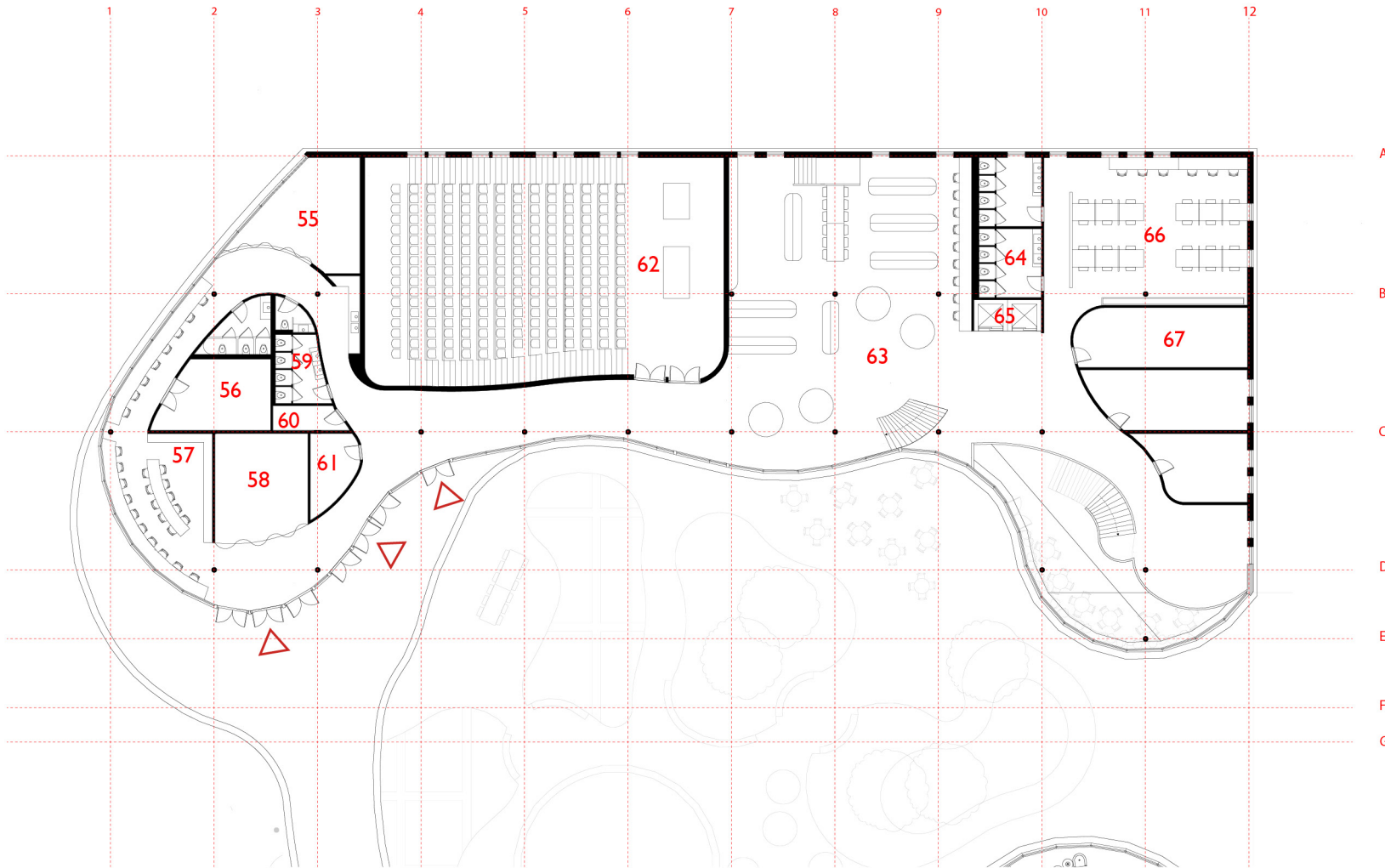
01

02

Scale bar



# The Academy PLAN 1ST 01



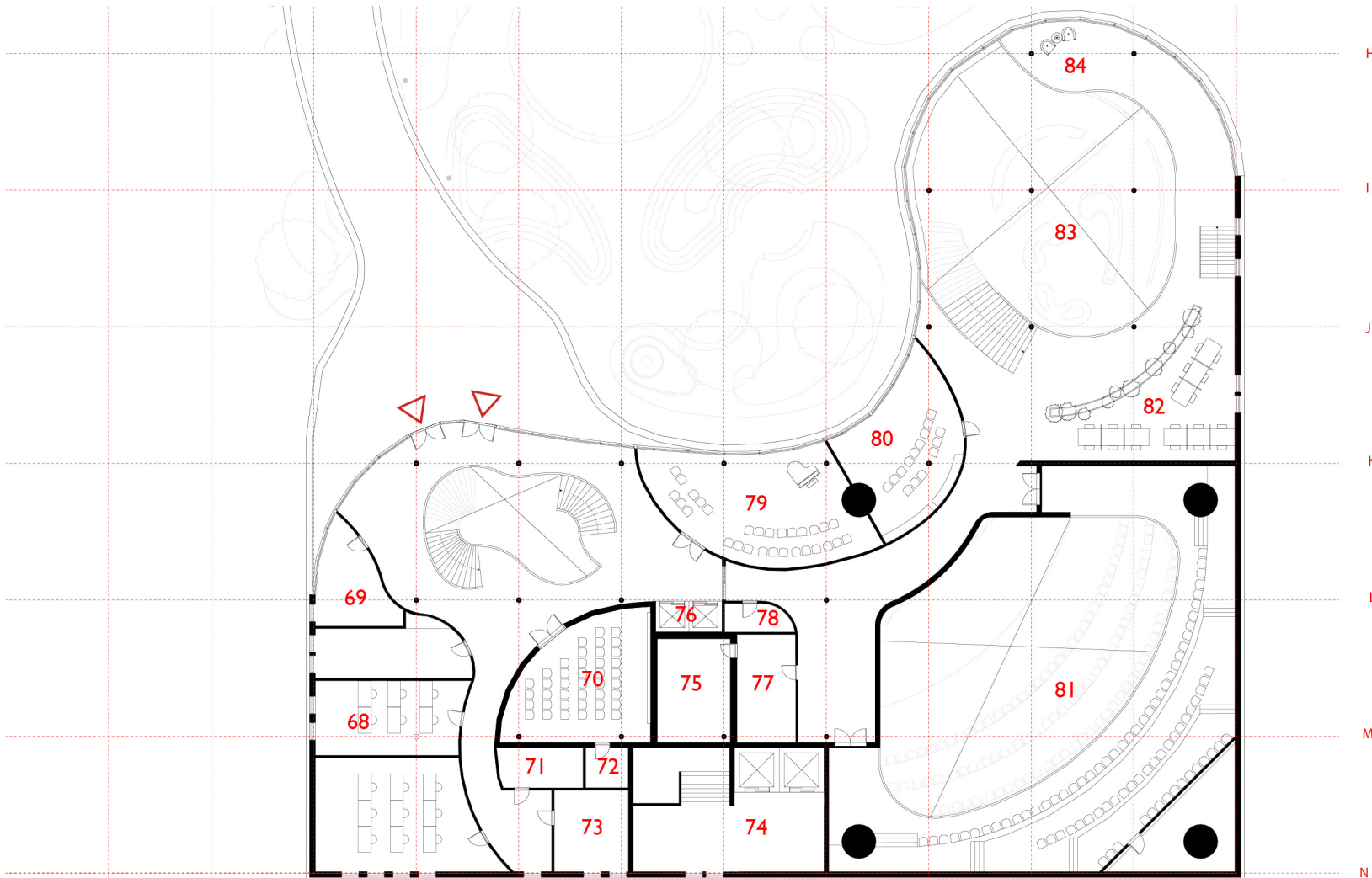
## LEGEND

- 55. Painting area
- 56. Digital art room
- 57. Open atelier
- 58. Painting area
- 59. Toilets
- 60. Cleaning storage
- 61. Supply storage
- 62. Lecture hall
- 63. Open library (2)
- 64. Toilets
- 65. Elevators
- 66. Flex working space
- 67. Freelance ateliers

Scale bar



# The Academy PLAN IST 02



## LEGEND

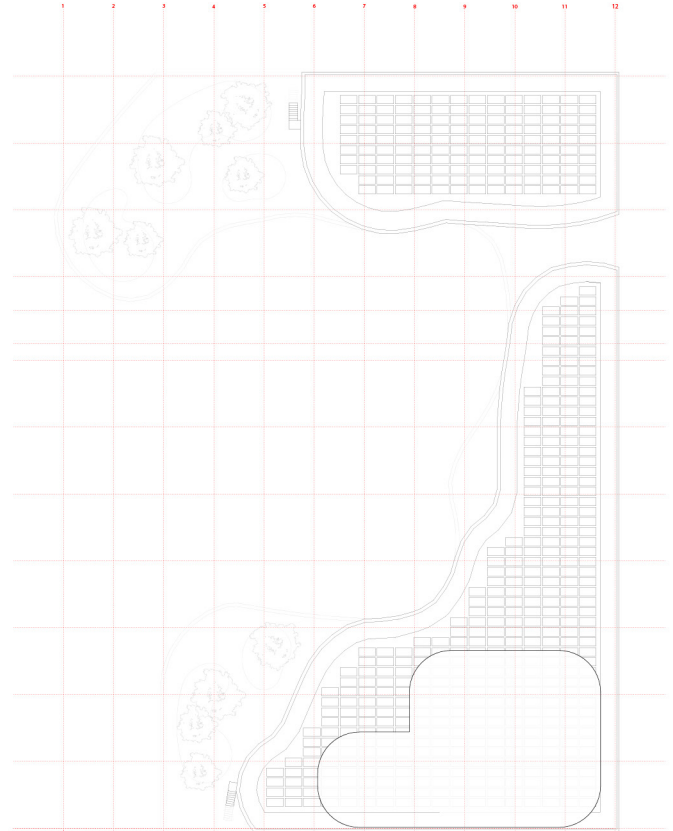
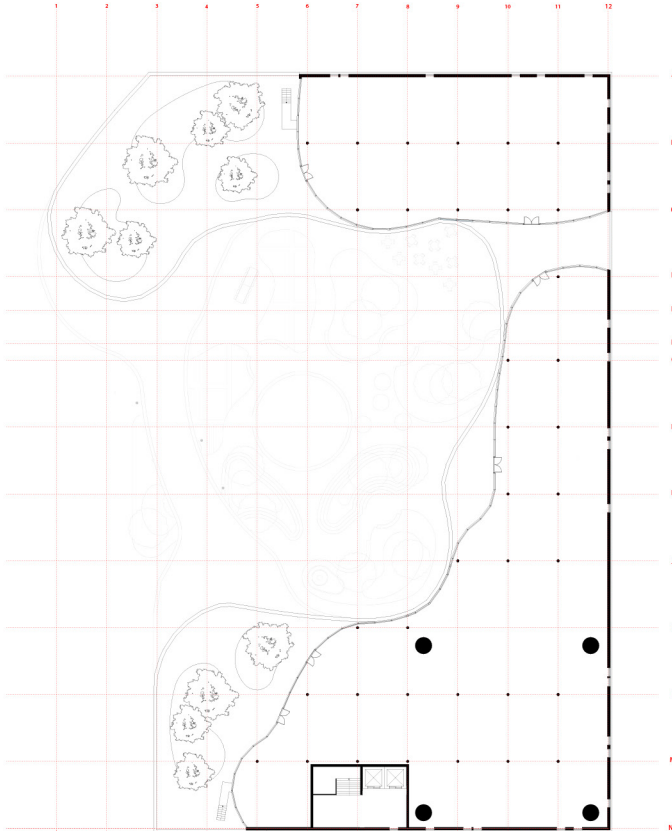
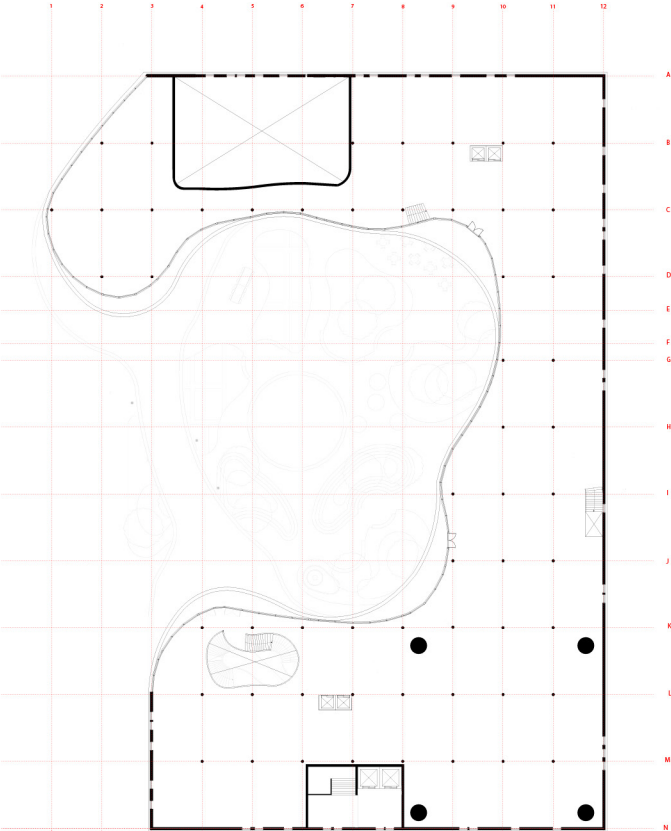
- 68. Classrooms
- 69. Freelance ateliers
- 70. Cinema
- 71. Silent music room
- 72. Cinema movie storage
- 73. Music room
- 74. Appartments entrance
- 75. Record studio (1)
- 76. Elevators
- 77. Record studio (2)
- 78. Cleaning storage
- 79. Concert hall 1
- 80. Concert hall 2
- 81. Auditorium 2nd ring
- 82. Flex working space
- 83. Entrance hall
- 84. Seating area

Scale bar

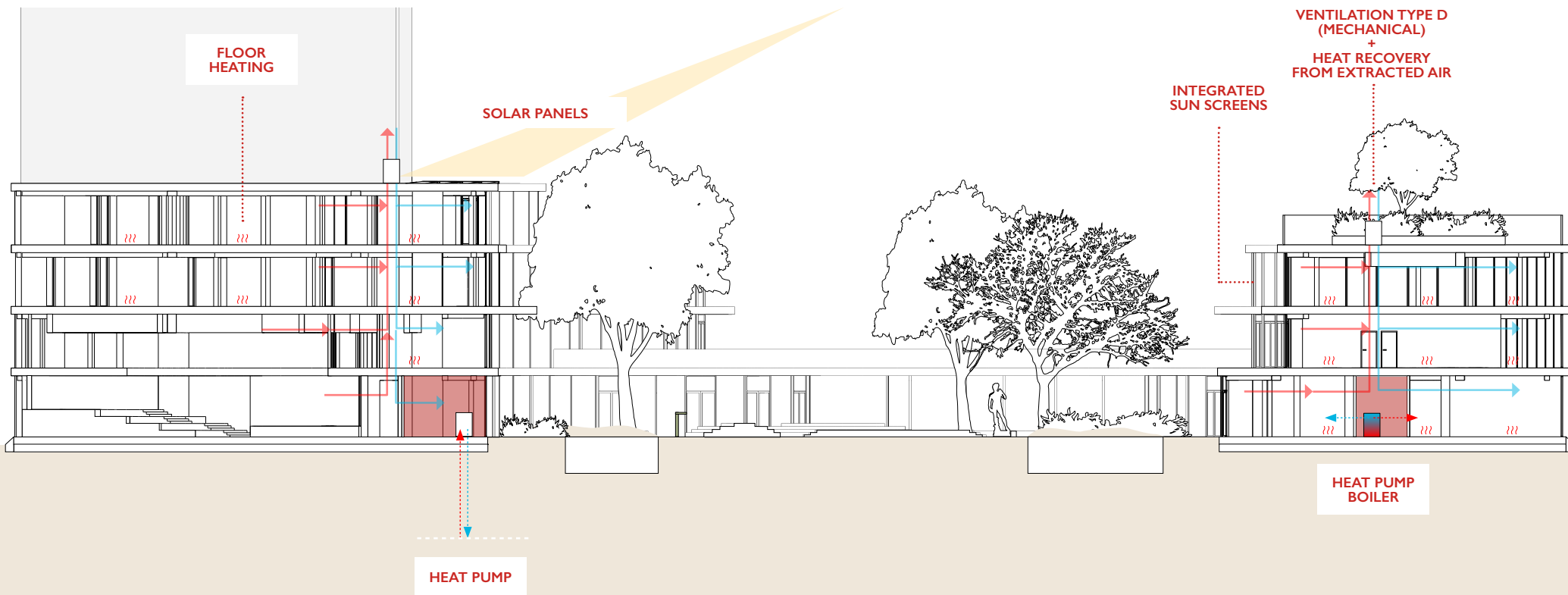
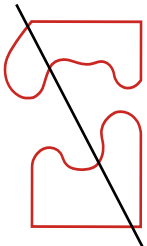


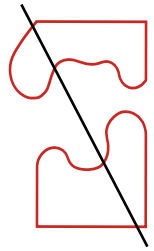


# The Academy PLAN 3RD - 4TH - ROOF

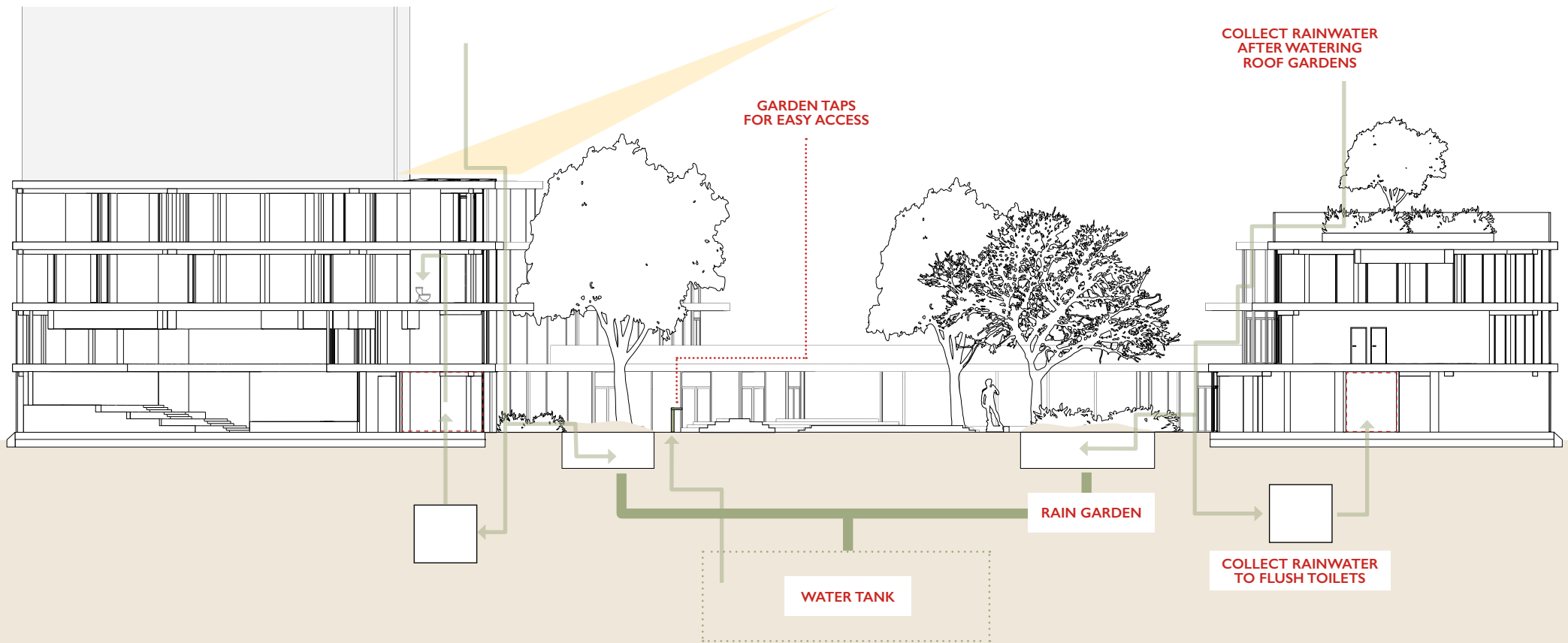


# The Academy SECTION 02 / CLIMATE

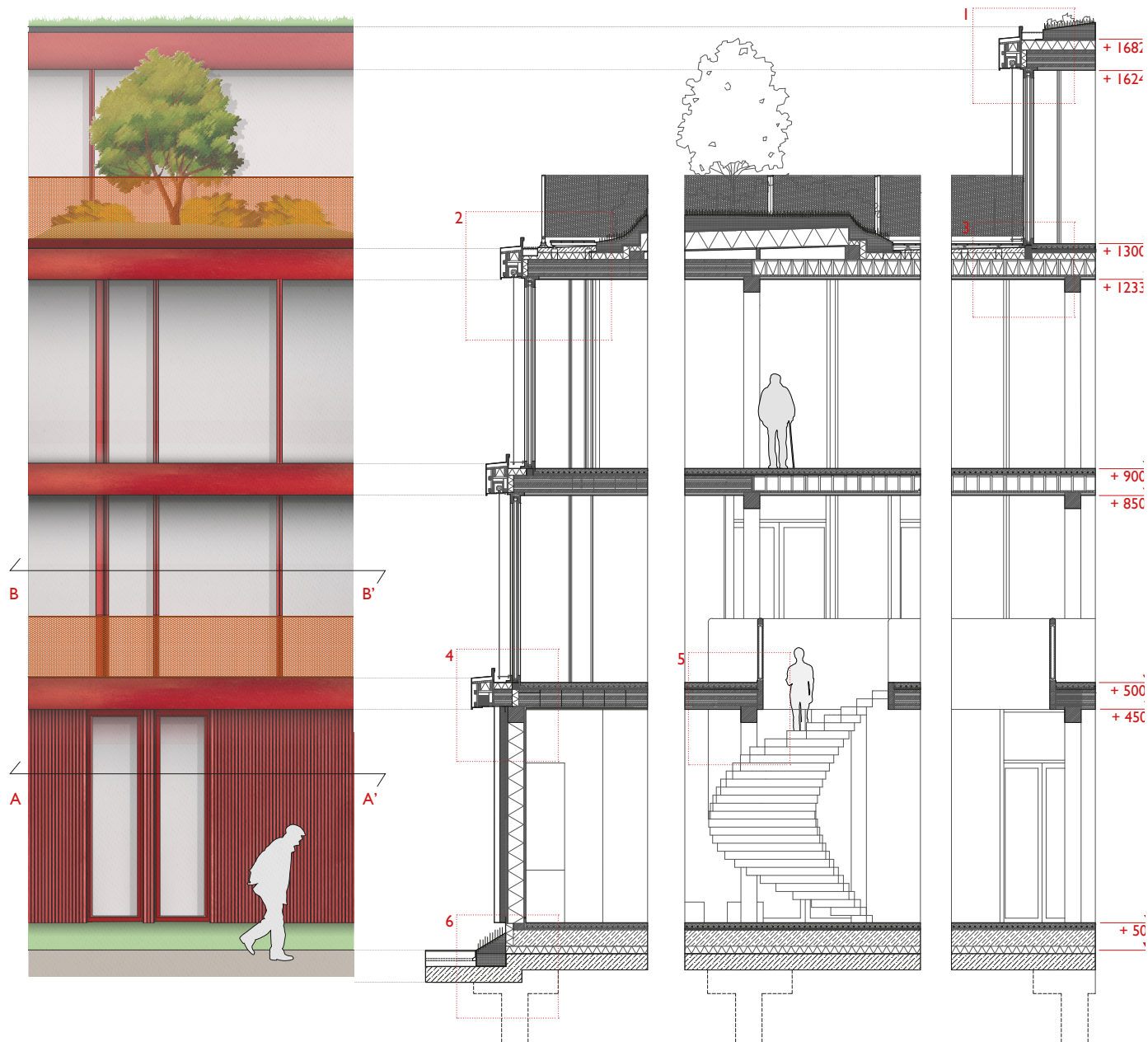




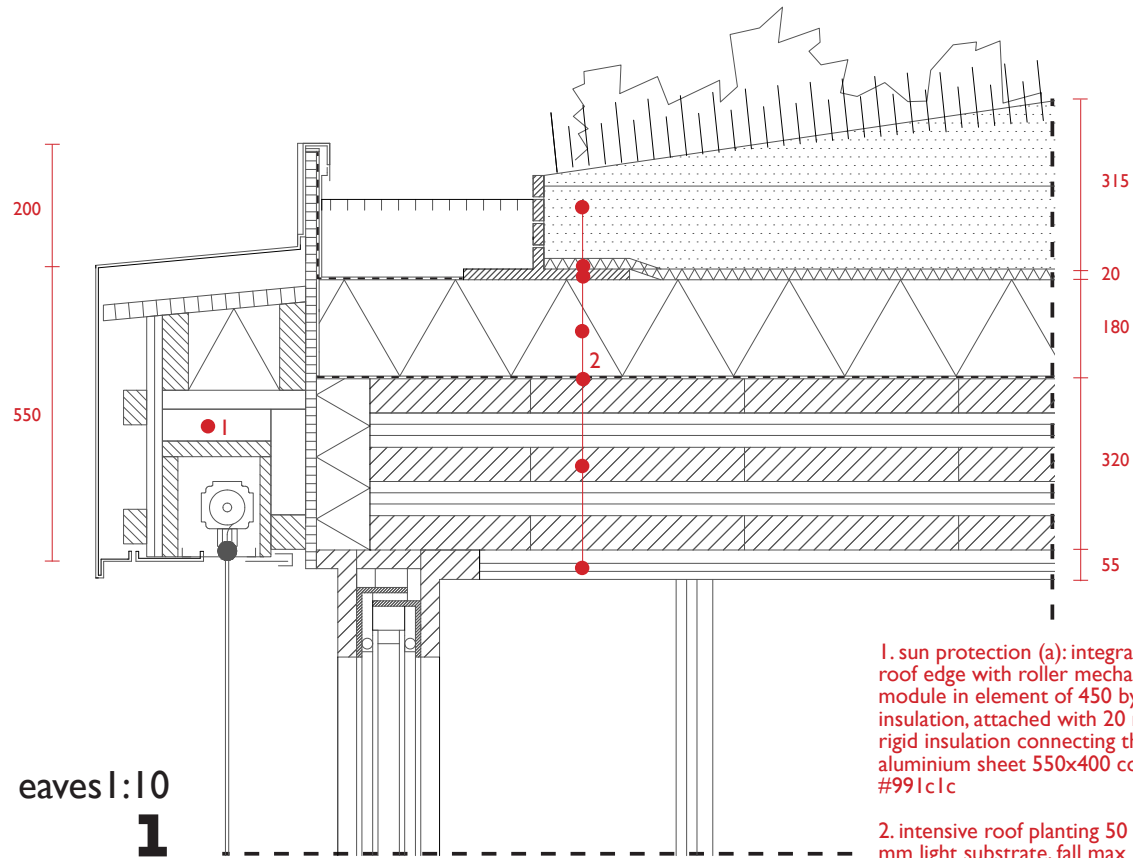
# The Academy SECTION 02 / WATER



# The Academy FACADE DETAIL



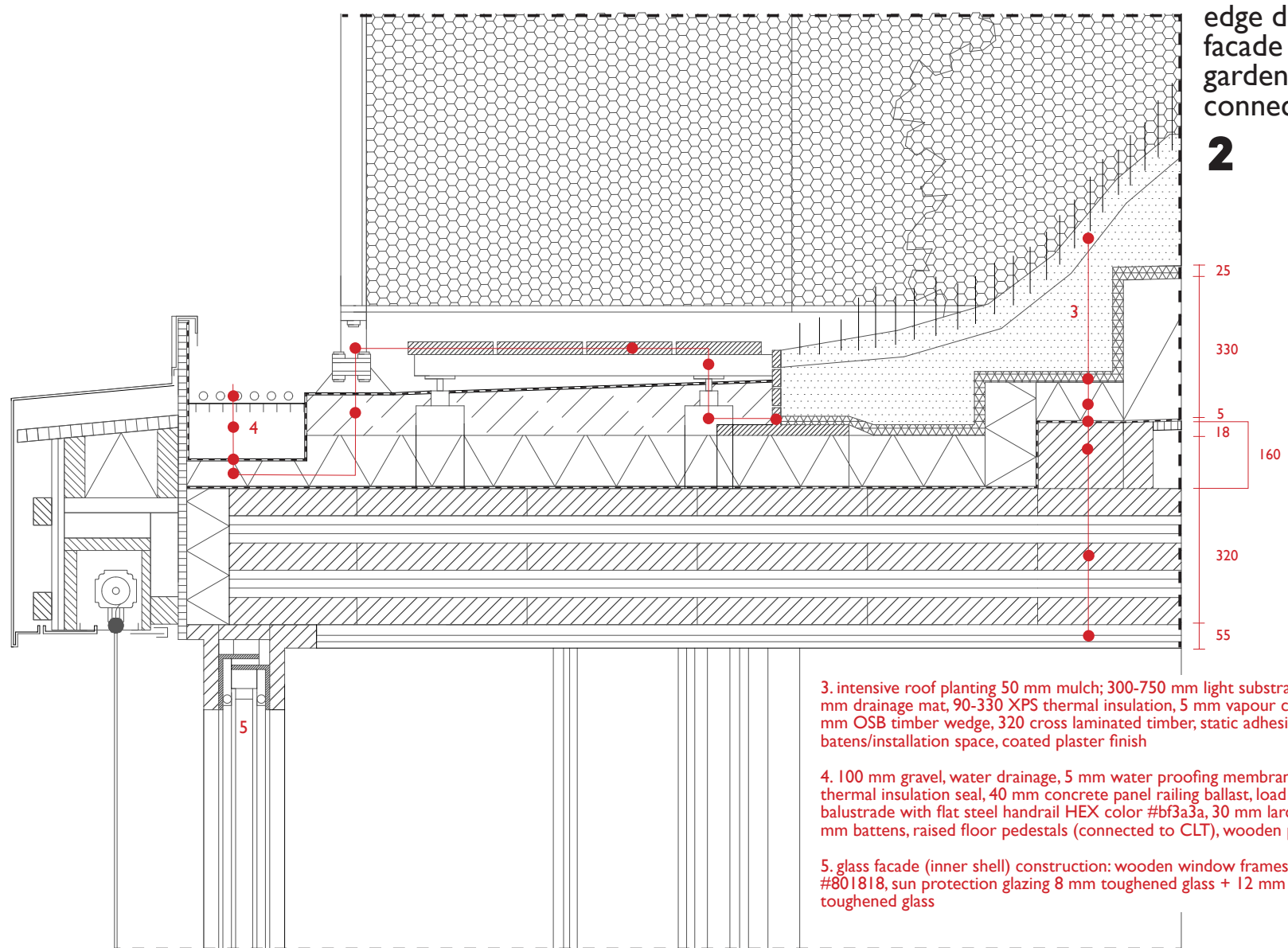
# The Academy TECHNICAL DETAIL 1:10



1. sun protection (a): integrated vinyl sun blinds in roof edge with roller mechanism, 200;215 glulam module in element of 450 by 300 with 150 mm insulation, attached with 20 mm plywood to rigid insulation connecting the CLT slab, 2 mm aluminium sheet 550x400 color HEX red matt #991c1c

2. intensive roof planting 50 mm mulch; 300-750 mm light substrate, fall max 1:3, 25 mm drainage mat, wooden planter anchor, 180 XPS thermal insulation, 5 mm vapour control layer, 320 cross laminated timber, static adhesive bond 40/60 mm batens/installation space, coated plaster finish

# The Academy TECHNICAL DETAIL 1:10



edge detail glass  
facade + roof  
garden with fence  
connection 1:10

**2**

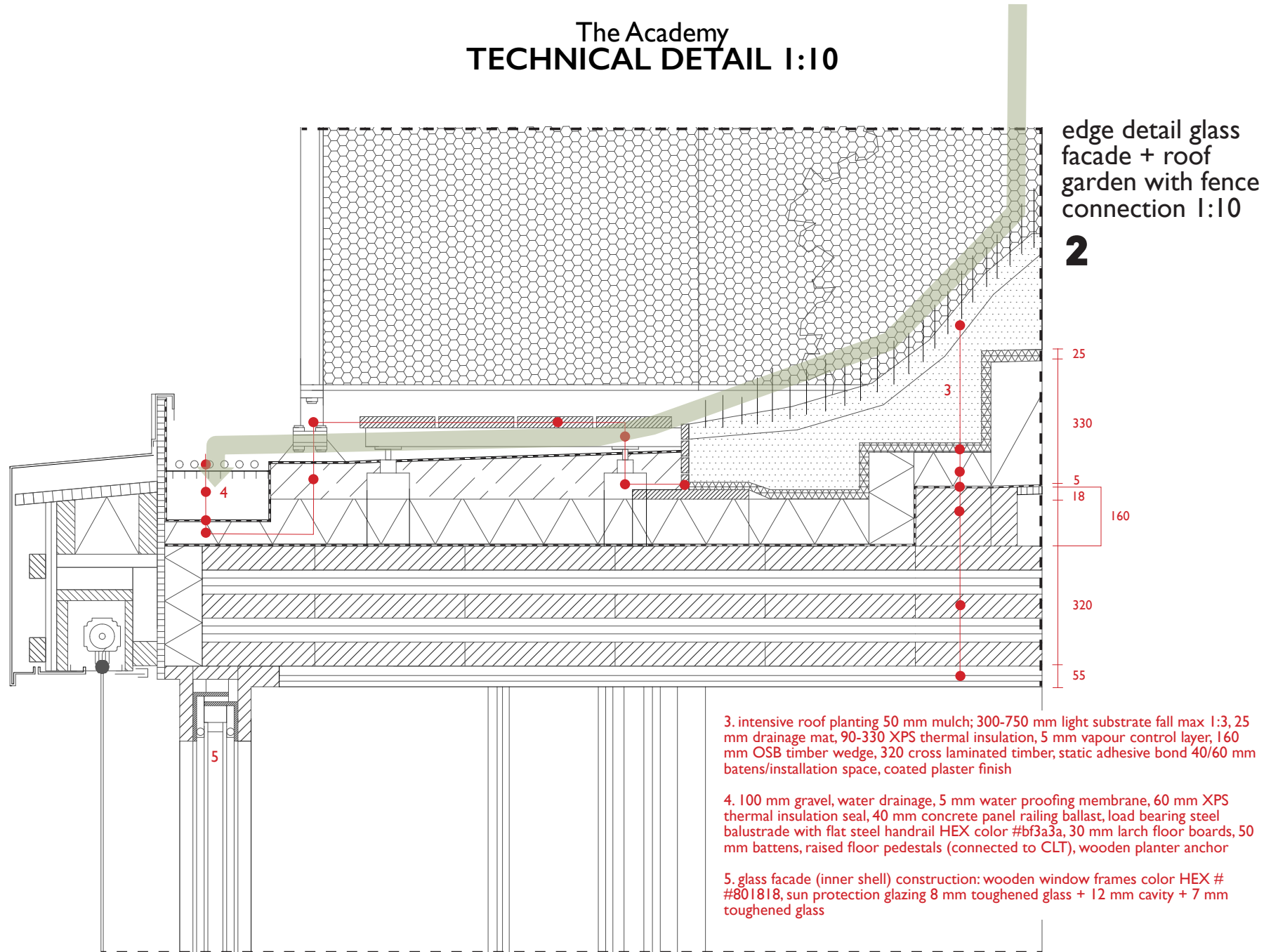
25  
330  
5  
18  
160  
320  
55

3. intensive roof planting 50 mm mulch; 300-750 mm light substrate fall max 1:3, 25 mm drainage mat, 90-330 XPS thermal insulation, 5 mm vapour control layer; 160 mm OSB timber wedge, 320 cross laminated timber, static adhesive bond 40/60 mm batens/installation space, coated plaster finish

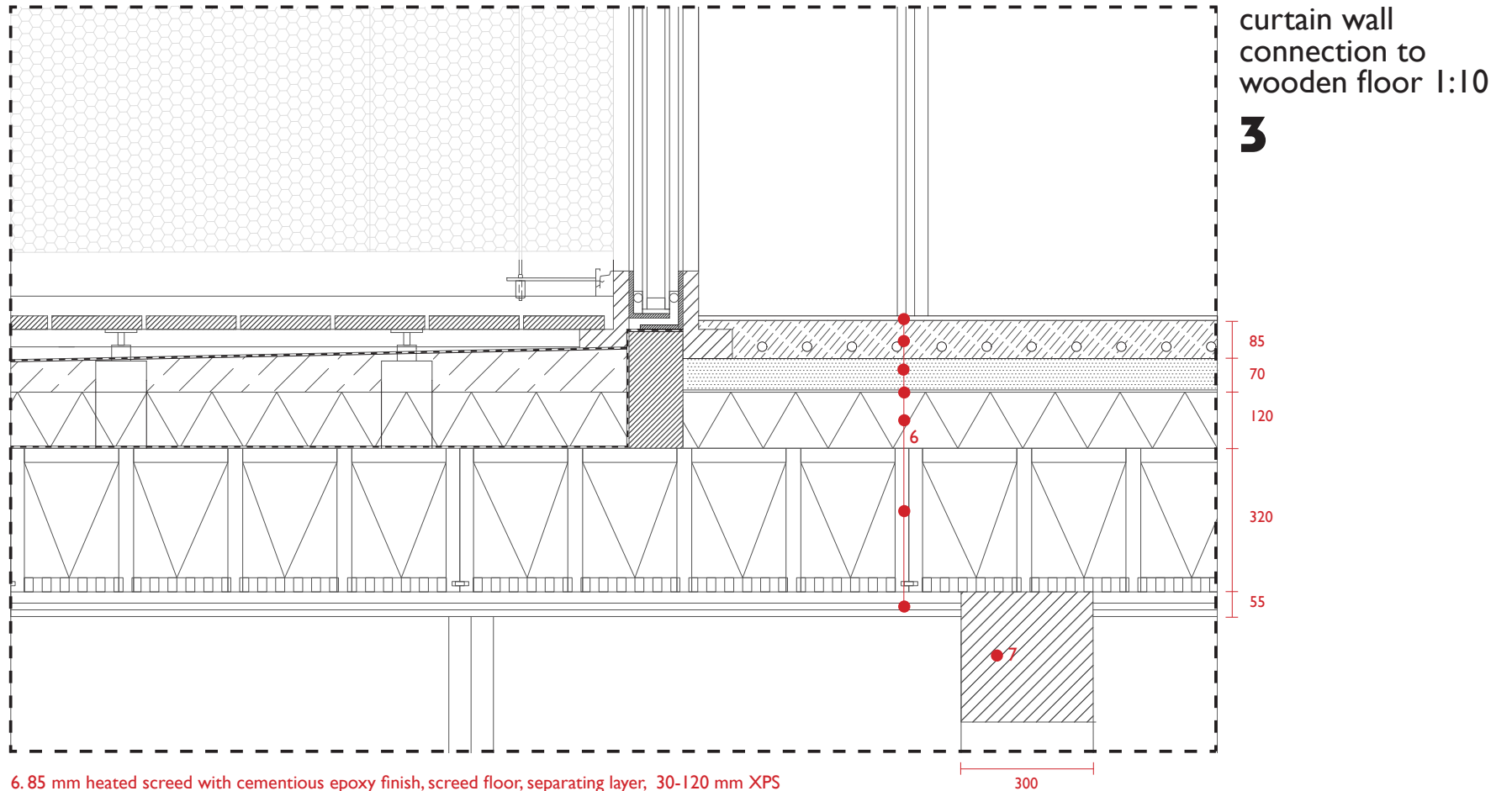
4. 100 mm gravel, water drainage, 5 mm water proofing membrane, 60 mm XPS thermal insulation seal, 40 mm concrete panel railing ballast, load bearing steel balustrade with flat steel handrail HEX color #bf3a3a, 30 mm larch floor boards, 50 mm battens, raised floor pedestals (connected to CLT), wooden planter anchor

5. glass facade (inner shell) construction: wooden window frames color HEX # #801818, sun protection glazing 8 mm toughened glass + 12 mm cavity + 7 mm toughened glass

# The Academy TECHNICAL DETAIL 1:10



# The Academy TECHNICAL DETAIL 1:10

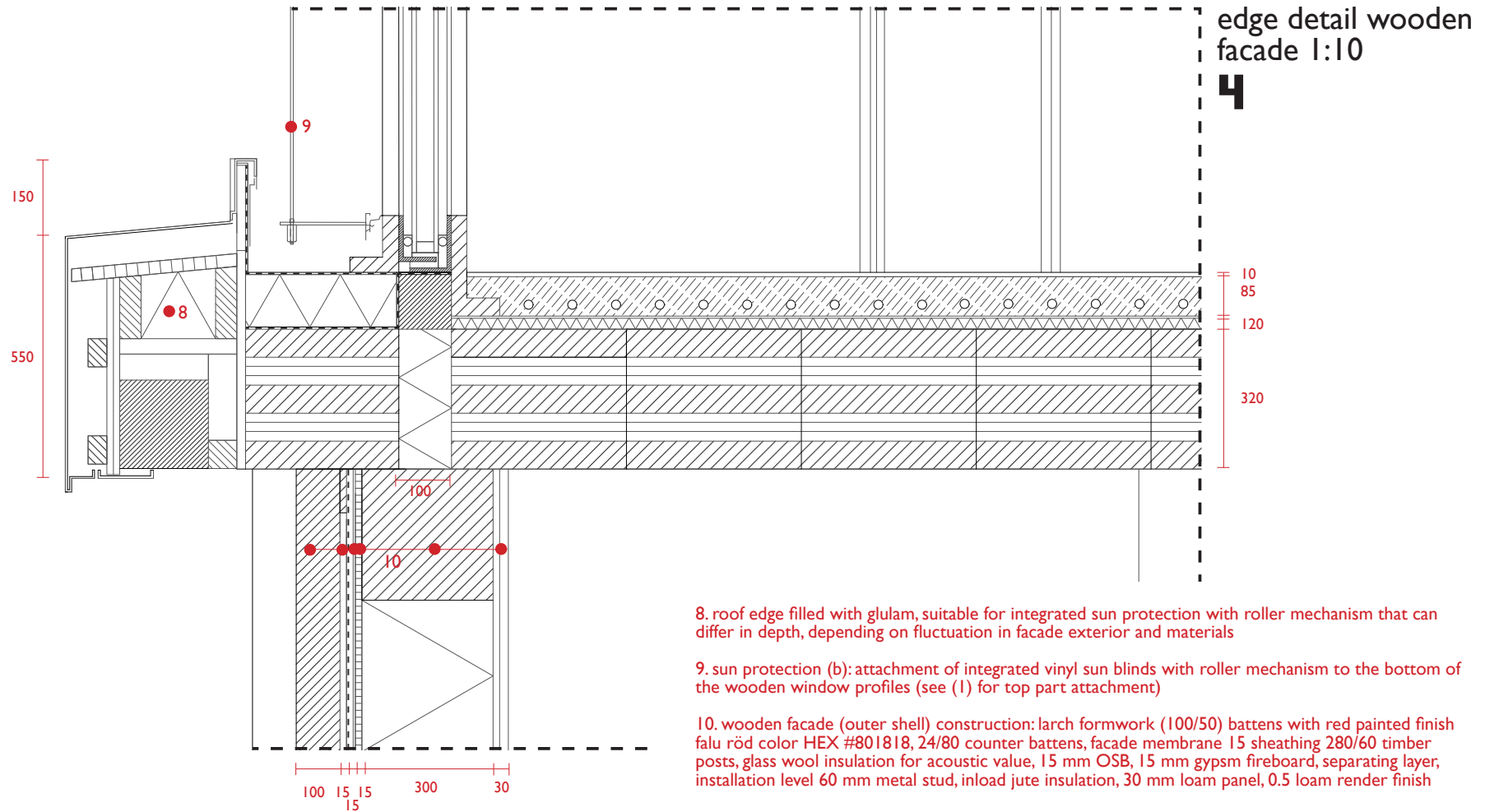


6. 85 mm heated screed with cementitious epoxy finish, screed floor; separating layer, 30-120 mm XPS thermal insulation floor element, 320 mm Lignatur wooden flooring combined with insulation, static adhesive bond 40/60 mm batens/installation space, coated plaster finish

7. wooden beam (Robinia) 300x300



# The Academy TECHNICAL DETAIL 1:10



**we forget that people with dementia  
are not patients you can put in a chair  
they are still people**

An aerial photograph of a modern architectural courtyard. A prominent feature is a large, flowing red ribbon-like structure that winds through the space. The courtyard is filled with lush green trees and plants. In the center, a group of people is gathered on a paved area. The overall atmosphere is bright and open. Overlaid on the right side of the image is a large, semi-transparent graphic of a hand with fingers spread, rendered in a light blue-grey color.

DEMENTIA *ART* ACADEMY  
*THANK YOU*

## Research QUESTIONS

1. What are the (cognitive and sensory) challenges faced by individuals with dementia and how do these challenges affect their spatial perception and navigation abilities?
2. What does well-being mean for people suffering from dementia and how can diverse art practices affect their well-being?
3. How can architectural design support the unique spatial needs of individuals with dementia?
4. Which features are desired in terms of spatial design when it comes to implementing art and dementia in architecture?
5. How can architectural design incorporate art (based therapies) into the living & care spaces of individuals suffering from dementia to enhance their physical and emotional environment?

# Guidelines APPLICATION



1. Easy orientation

## 1. Easy orientation

**Dementia Wing:**  
The dementia wing features a single long, curved hallway that provides clear directional guidance and an intuitive route. This design eliminates any T-junctions, making the paths easy to navigate. Both wings culminate in a shared living space where residents can eat, cook together, and watch TV.

**Garden:**  
The garden design mirrors the interior architecture, with circular islands that intuitively guide visitors towards various garden features such as a fountain, illuminated benches, or an outdoor stage. All garden paths lead to one of the main entrances: the grand entrance, the open studio, the café, or the dementia wing.

**Art Academy:**  
The art academy extends the circular routes throughout the entire facility, avoiding T-junctions and reducing the risk of getting lost. By following these circular paths, individuals will eventually return to the dementia wings. Additionally, a strip of different-colored material on the floor indicates the route.



2. Facilitate engagement

## 2. Facilitate engagement

**Dementia Wing:**  
Engagement is fostered through an open kitchen and dining area where residents can assist in cooking, gardening, or folding laundry.

**Art Academy:**  
The academy promotes engagement by offering various open art studios where individuals with dementia can join at any time. There is also an open exhibition space, a café for socializing, an open library for browsing, and music rooms for making music.



3. Sensory environment

## 3. Sensory environment

**Dementia Wing:**  
A sensory environment engages the physical senses. The open kitchen spreads food aromas throughout the wing, which has a positive effect on residents with dementia. The use of curved shapes, wooden materials, and music rooms further enhances this sensory environment.

**Garden:**  
The garden features several sensory stations, including a fountain, illuminated benches and chairs, and an outdoor stage. Residents can also engage in gardening activities in the vegetable garden.

**Art Academy:**  
Sensory environments are prevalent throughout the academy. In the open exhibition area, one can touch and see artworks; in the café, one can smell and taste; and in the auditorium or music rooms, one can hear and see performances. Good acoustic design ensures that music is contained within designated areas to avoid overstimulation.

## 4. Balance between therapeutic & memory spaces

**Art Academy:**  
Balancing therapeutic and memory spaces is one of the four key guidelines for the art academy. The combined art academy and respite care facility naturally integrate these spaces. The art academy offers structured therapeutic activities such as art therapy, while the respite care facility provides memory-enhancing environments through familiar and comforting settings. Visitors can relax in the dementia wings, while the academy facilities and activities offer emotional security and reduce anxiety.



4. Balance between therapeutic & memory spaces

## 5. Clear overview

**Dementia Wing:**  
A small section accommodating a maximum of 7 residents (3 single bedrooms and 1 double bedroom) ensures oversight. A short circular corridor connects all functions, and recesses in the hallway allow daylight into the area, minimizing stark contrasts in colors or materials that might unsettle visitors.

**Garden:**  
Small, hilly areas no higher than 1 meter ensure visibility across the entire garden. Circular pathways always lead back to one of the main entrances, maintaining an overview of the inner garden.

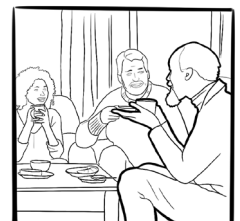
**Art Academy:**  
The art academy uses many open floor plans (studios, library, café, exhibition spaces), maintaining clear visibility across the areas. Curved walls and corridors prevent surprises around sharp corners, and extensive use of glass walls ensures spaces are well-lit with views of the outside.



5. Clear overview

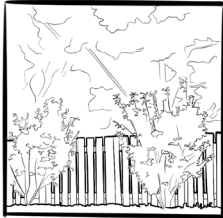
## 6. Promote social contact

**Art Academy:**  
Promoting social contact is a primary pillar of the art academy. As a central cultural hub, it brings together students, local residents, artists, and individuals with dementia. The goal is to reintegrate people with dementia into society rather than isolating them. Open functions such as the library, studios, and music rooms encourage social interaction.



6. Promote social contact

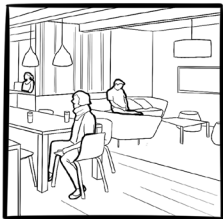
# Guidelines APPLICATION



7. Secure perimeters

## 7. Secure perimeters

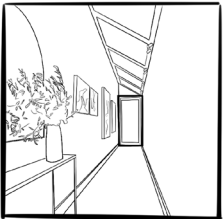
**Garden & Art Academy:**  
The inner garden of the art academy is enclosed by the building, with its curved shapes gently encouraging visitors to stay within the perimeters. If someone ventures off the premises, the exterior of the building, made from a different, more austere material, subtly encourages them to return. The building's striking red color makes it a recognizable beacon for both dementia patients and external visitors. Inside, all functions are easily accessible, with the undulating hallway providing a safe path throughout the building. Parts of the building can be closed off for evening programs or private use, ensuring security and privacy.



8. Cluster living arrangements

## 8. Cluster living arrangements

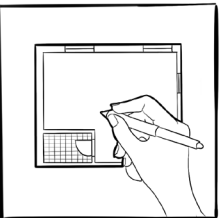
**Dementia Wing:**  
Small living groups provide oversight and tranquility, with a maximum of 7 residents (5 single rooms and 1 double room) per unit. The living functions are centralized in one area to involve residents in daily activities and to help caregivers maintain oversight. Separate spaces are available for dining or for individuals to retreat to, minimizing stress and anxiety.



9. Minimal change / direction

## 9. Minimal change / direction

**Overall Design:**  
The entire building is designed with "minimal change/direction" in mind, avoiding T-junctions to prevent disorientation. The flowing lines and curved hallways ensure that following the circular paths will eventually lead residents back to the dementia wing. Should anyone get lost, community members are always ready to guide them back to their unit or an open studio.



10. Simple floorplans

## 10. Simple floorplans

**Dementia Wing:**  
By keeping the sections small, with a maximum of 7 residents, the spaces remain manageable. One (curved) hallway connects all functions, with each door leading to either a communal open space or the hallway itself. The layout is easy to understand, minimizing choice-related stress in routing.

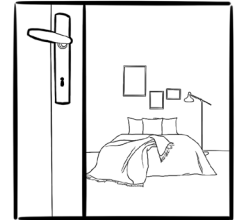
**Art Academy:**  
The open floor plans make the building easy to navigate. The long hallway connects various art functions, allowing easy movement from an open studio to the exhibition space. There are no difficult decisions, sharp corners, or restricted areas. The different art functions guide visitors through the building seamlessly.

## 11. Visual access

**Dementia Wing:**  
Open, clustered living arrangements ensure visual access. Residents can easily find the breakfast area by following the only hallway and the scent of food. Art spaces or displays are easy to locate and not hidden behind closed doors.

**Garden:**  
Small, hilly areas no higher than 1 meter ensure visibility across the entire garden. Circular pathways always lead back to one of the main entrances, maintaining an overview of the inner garden.

**Art Academy:**  
The open plans throughout the academy provide "see-through" views, allowing glimpses of art activities in other rooms. This transparency offers a clear overview of what's happening in the building and lets art guide visitors through the space. Various art functions are visible through glass walls or open plans.



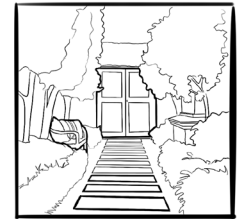
11. Visual access

## 12. Inviting walkways

**Dementia Wing:**  
Art contributes to creating inviting walkways. Along the central hallway, finished with warm wooden materials, are various art displays where residents can view (their own) art. There are also cut-outs with benches for sitting or playing games.

**Garden:**  
The garden features various art objects and seating areas that keep the routes accessible and engaging. There are graduate projects on display, illuminated objects, or objects that produce gentle sounds (like trickling water).

**Art Academy:**  
Art itself plays a significant role in making the walkways inviting. By connecting various art functions with a single hallway, art serves as a continuous thread through the building. From one art function (like the open studio on the ground floor), you get intriguing views into another function (such as the open exhibition space). This continuous visual engagement invites exploration and discovery throughout the building.



12. Inviting walkways

## 13. Integrate daily functions

**Overall Design:**  
Daily functions are integrated into all areas. In the dementia wings, clustered living arrangements allow residents to cook together and fold laundry. The garden features a vegetable garden for daily gardening activities. The art academy offers daily programs, including workshops, classes, and activities. This integration promotes active participation, routine, and a sense of normalcy for all residents and visitors.



13. Integrate daily functions

# Guidelines APPLICATION



14. Fostering a sense of community

## 14. Fostering a sense of community

**Art Academy:**  
One of the key pillars of the art academy is to serve as a hub for various art forms, a meeting place for local residents, a flexible workspace for artists, a school for students, and temporary accommodation for people with dementia. By creating an art academy where diverse individuals can gather, a community is formed. This community of like-minded people connects through art, sharing their passions and forming bonds.



15. Design appealing outdoor space

## 15. Design appealing outdoor space

**Garden:**  
The garden offers various features that invite exploration; outdoor performances in the summer (music and theater), a vegetable garden maintained by dementia patients and students, rainwater taps for garden watering, illuminated seating elements guiding pathways, seating alcoves, a fountain, and various art exhibitions showcasing student and independent artists' works. Ground-floor studios open to outdoor areas for painting and sculpting in the summer, and the visual arts studio on the first floor extends to an open-air bridge for outdoor art activities.



16. Provide flexible spaces

## 16. Provide flexible spaces

**Dementia Wing:**  
Each dementia wing includes two flexible art spaces—one per unit. These spaces allow for smaller group activities, such as creating art or music, catering to those who may not want to visit the main academy or who are easily overstimulated.

**Art Academy:**  
The art academy features multiple flexible spaces. Open plans allow for versatile arrangements tailored to different functions. The exhibition space can be reconfigured for various themes or shows, and the studios are adaptable for different art activities. Additionally, there are flexible workspaces for freelancers and independent artists, as well as various rentable spaces.

**17. Empower autonomy**  
Perhaps the most crucial guideline of the entire project is to “empower autonomy.” Placing a respite care function within an art academy maximizes autonomy. In typical care facilities, art activities are sometimes organized, but residents must sign up in advance. By integrating a respite care wing within an art academy, individuals can decide spontaneously what they want to do each day. They can explore on their own and join a class, workshop, or activity whenever they choose.

The open and inviting layouts and functions ensure that people with dementia are included in the academy's programs. If they prefer to stay on the ward, that's perfectly fine—they can help with cooking or watch TV. However, the design encourages them to independently (or with a student) explore and participate in a painting workshop, have coffee in the café or on the terrace, take a music lesson, or enjoy graduate art exhibitions or performances. All staff and students are aware of these “special” guests and know how to interact with them appropriately, fostering an inclusive and supportive environment.



17. Empower autonomy

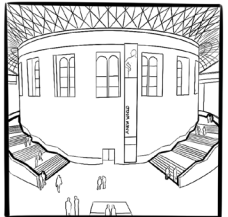
**18. Focus on art and creativity**  
**Dementia Wing:**  
Each wing is designed with a focus on art, featuring a flexible space where various art forms can be explored. This space is ideal for residents who may feel overstimulated and prefer not to visit the main art academy. Additionally, an extra-large storage area is provided to store garden-grown vegetables and fruits, enhancing creativity in cooking. Residents can participate in cooking, which further promotes their autonomy.

**Art Academy:**  
The art academy emphasizes art through a variety of artistic functions. Key art activities for people with dementia are located on the ground and first floors for easy access. Throughout the day, there are art programs and classes that they can join or observe. The building's layout features a central winding hallway that guides visitors through all the art functions. This path leads from the public library to the open exhibition space showcasing graduate projects and works by individual tenants or artists, then to the auditorium, dance hall, and open atelier with various workshop rooms.



18. Focus on art and creativity

**19. Create a central (cultural) hub**  
The art academy serves as a central cultural hub by bringing together diverse groups of people: students, local residents, artists, and individuals with dementia. It provides a space for various artistic expressions and community activities, fostering social interaction and cultural exchange. The academy's open layout and inclusive programs encourage participation from all community members, creating a vibrant environment where art and culture thrive.



19. Create a central (cultural) hub

# Guidelines APPLICATION



20. Feature prominent placement of artworks

## 20. Feature prominent placement of artworks

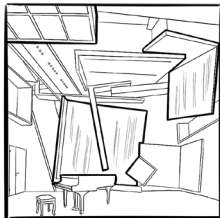
**Dementia Wing:**  
In the dementia wings, there are numerous spaces within the walls designed to display and exhibit self-made art. Additionally, residents can look outside and see various art objects, enhancing the visual and sensory experience.

### Garden:

The garden is dotted with various artworks, providing space for graduate students' projects as well as sculptures and other pieces by private artists. This outdoor art display creates an engaging and stimulating environment.

### Art Academy:

The art academy is infused with art. The open exhibition space hosts various shows throughout the year, featuring guest designers and graduate projects. Many art functions are visible through glass walls, allowing easy access to performances in the open-air theater or the auditorium. The presence of different atriums and balconies offers views of art on other floors. Art serves as a guiding element throughout the building, offering visitors numerous "see-throughs" and intriguing glimpses into other parts of the academy.

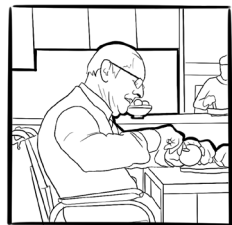


21. Good acoustics

## 21. Good acoustics

### Overall Design:

In the academy, the construction has been developed with enhanced floor and wall insulation to ensure optimal acoustics. This design keeps sound contained within designated spaces, preventing noise from spreading and causing disturbances. Additionally, there are recording studios with extra thick walls to further contain sound.



22. Accessible and safe kitchen space

## 22. Accessible and safe kitchen space

### Dementia Wing:

The dementia wing features an accessible and safe kitchen space with extra storage for homegrown vegetables and fruits. This kitchen allows residents to participate in cooking activities, promoting autonomy and providing a sense of accomplishment.

## 23. Daylight access

**Dementia Wing:**  
All rooms in the dementia wings are designed to receive ample daylight. Common areas are situated along the glass facade facing the inner garden, allowing residents to look outside and enjoy natural light throughout the day.

### Art Academy:

In the art academy, functions requiring abundant light are positioned along the glass facade surrounding the inner garden. This layout enables these activities to extend outdoors during the summer. The central hallway connects to the facade at several points, ensuring it is well-lit and providing a clear overview. This design minimizes harsh contrasts in light and materials, reducing stress and confusion.





# Concept KEY GUIDELINES

## Benefits of the Art Academy Principle

**Integrated Care:** Combining art therapy and respite care in one setting ensures a seamless integration of therapeutic and memory-supportive environments.

**Enhanced Social Networks:** The art academy fosters a stronger sense of community and social engagement among residents and the local community.

**Increased Autonomy:** Flexible, creative spaces empower residents to make choices and engage in activities that interest them, preserving their independence.

**Rich Cultural Environment:** A central cultural hub offers continuous opportunities for engagement, learning, and interaction, enriching the residents' lives.

## Why Traditional Care Facilities Fall Short

**Segregation of Spaces:** Traditional care facilities often separate therapeutic activities and memory care environments, leading to less integrated and holistic care.

**Limited Social Interaction:** Standard care settings might not emphasize community-building to the same extent, leading to social isolation.

**Restricted Autonomy:** Conventional care environments often have more rigid schedules and less opportunity for self-directed activity, limiting residents' autonomy.

**Lack of Cultural Engagement:** Typical care facilities might not have the infrastructure or focus to create a vibrant cultural hub, missing out on the benefits of continuous cultural and creative engagement.

## Concept KEY GUIDELINES

### THERAPEUTIC & MEMORY SPACES

A combined art academy and respite care facility naturally integrates therapeutic and memory spaces. The art academy offers structured therapeutic activities such as art therapy, while the respite care facility provides memory-enhancing environments through familiar and comforting settings.



4. Balance between therapeutic & memory spaces



14. Fostering a sense of community

### A SENSE OF COMMUNITY

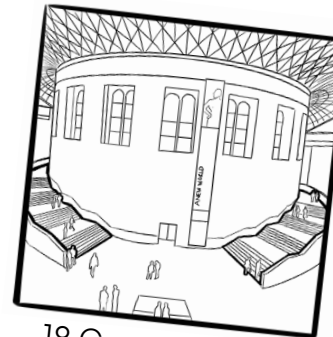
An art academy inherently fosters a sense of community by bringing together individuals with shared interests in art and creativity. This shared focus can enhance social interaction and build supportive networks among residents, caregivers, and artists.



17. Empower autonomy

### AUTONOMY

The art academy model empowers individuals by giving them the freedom to explore their creative interests and participate in various activities at their own pace. This autonomy is facilitated by flexible spaces and accessible design.

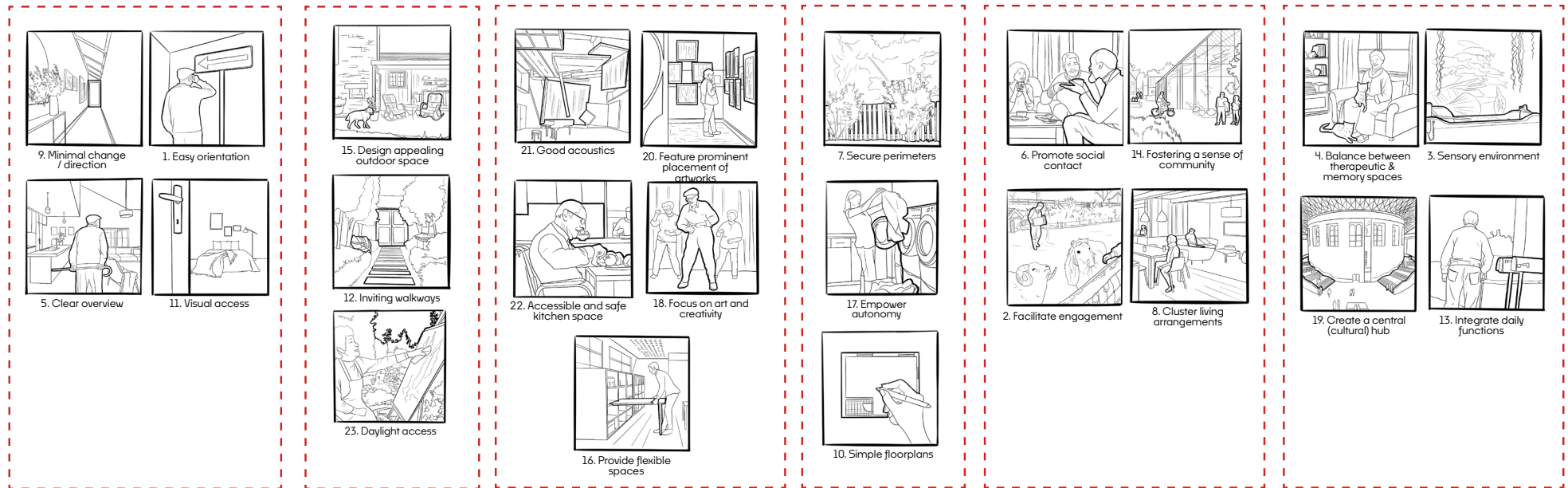


19. Create a central (cultural) hub

### A CENTRAL HUB

An art academy naturally functions as a cultural hub, offering regular exhibitions, performances, and communal art projects. This central hub can be a vibrant focal point for both the residents and the broader community, fostering a sense of inclusion and engagement.

# Design brief CRITERIA



## Accessibility and convenience

(easily accessible for people with dementia/visitors and staff)

## Natural environment

(calm and green environment, provide activities like gardening, daylight access)

## Space for art and creativity

(a location with sufficient space for art studios, galleries and creative workspaces, also for music)

## Safety and security

(clear perimeters, calm roads)

## Sense of community

(shops or social meeting spaces can contribute to a sense of connection)

## Central cultural hub

(a place where various artistic disciplines come together, this can serve as a meeting place and a source of inspiration)