The Agency of Aesthetics

Exploring the potential of Aesthetic Urban Forest Infrastructure

Graduation P5 - 01/07/2021
Urban Forestry Lab

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2nd mentor: Maurice Harteveld

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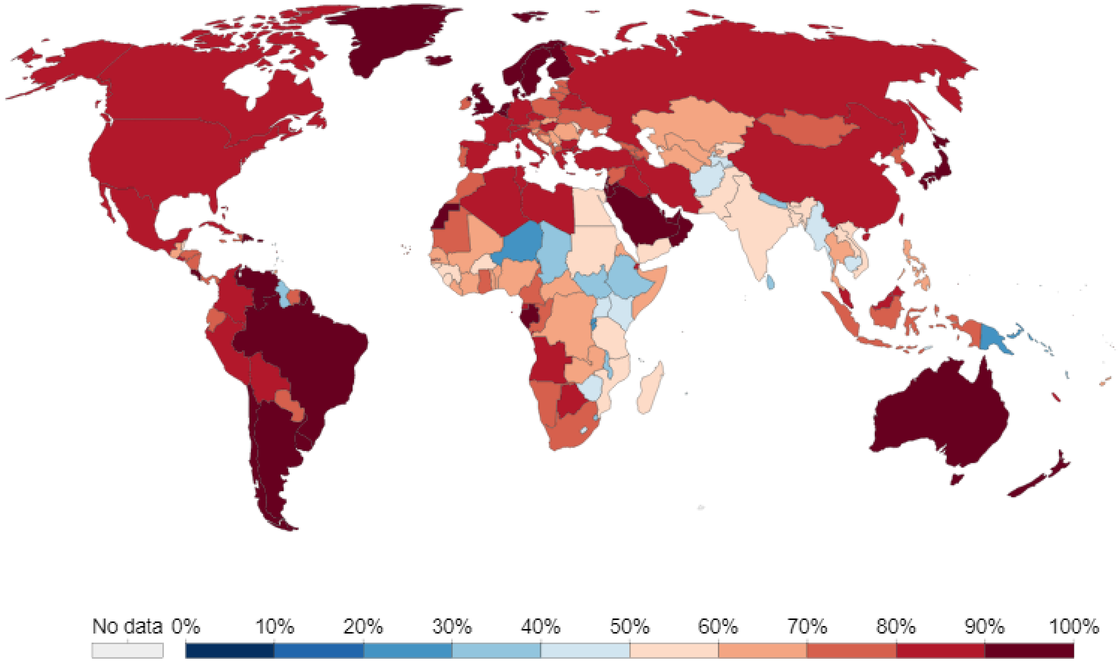
1. introduction

1.1 problem statement

share of the population living in urban areas

source: (United Nations, Department of Economic and Social Affairs, Population Division, 2018)



What about the urban forest?

1.2 concept

urban forestry

benefits the climate, ecology and people's health and social interaction

(Alvey, 2006 ; Engel-Yan, Kennedy, Saiz, & Pressnail, 2011; Grahn & Stigsdotter, 2003; Totaforti, 2020; Velarde et al., 2007)

1.2 concept

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(transportation)

infrastructure

change of function and form

(Strang, 1996; Verheijen, 2015)

1.2 concept

urban forestry

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(transportation)

infrastructure

change of function and form

(Strang, 1996; Verheijen, 2015)

aesthetics

- The (new) **Sublime**
- The (new) **Beautiful**
- The **Interesting**
- The **Plain**

(Werner, 2001)

1.3 research questions

main question

What is the potential of combining urban forestry, infrastructure and aesthetic experience with each other?

what?

- What influence does infrastructure have on its surroundings?
- How will (and should) infrastructure develop over the next few decades?
- What is the role of aesthetics in relation to experience?

relation?

- What is the relationship between urban forestry and infrastructure?
- What is the relationship between urban forestry and aesthetics?
- What is the relationship between movement and aesthetic experience?

design?

- How can one design urban forest infrastructure?
- How can one design urban forestry while taking in mind its relation to aesthetic experience?
- How can one (re)design infrastructure while taking in mind its relation with aesthetic experience?

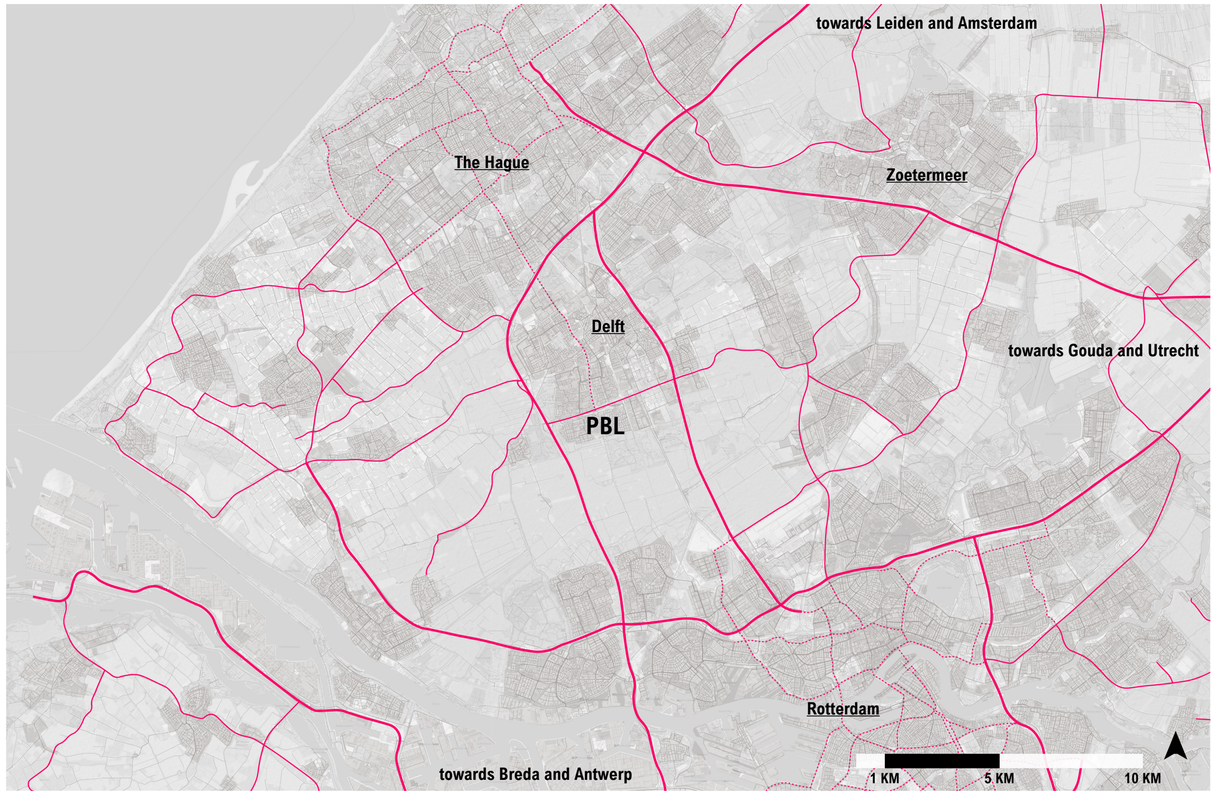


2. site introduction

Prinses Beatrixlaan, Delft

- **18,9% more houses in 2040**
- **road functions as a barrier**
- **affects living conditions in surrounding neighbourhoods**

2.1 infrastructure



Regional Private Transport

- A-road
- N-road
- S-road



Local Private Transport

- Expressway
- Distributor road
- Neighbourhood road

2.1 infrastructure

11 intersections

5 connections

4 tunnels

2 bridges

plans to develop intersection by the municipality

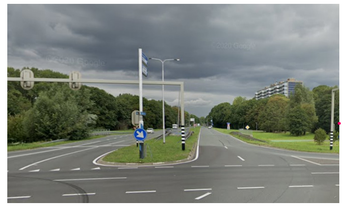
























Private Transport on the Prinses Beatrixlaan

2.1 infrastructure



Train

Metro (RandstadRail)

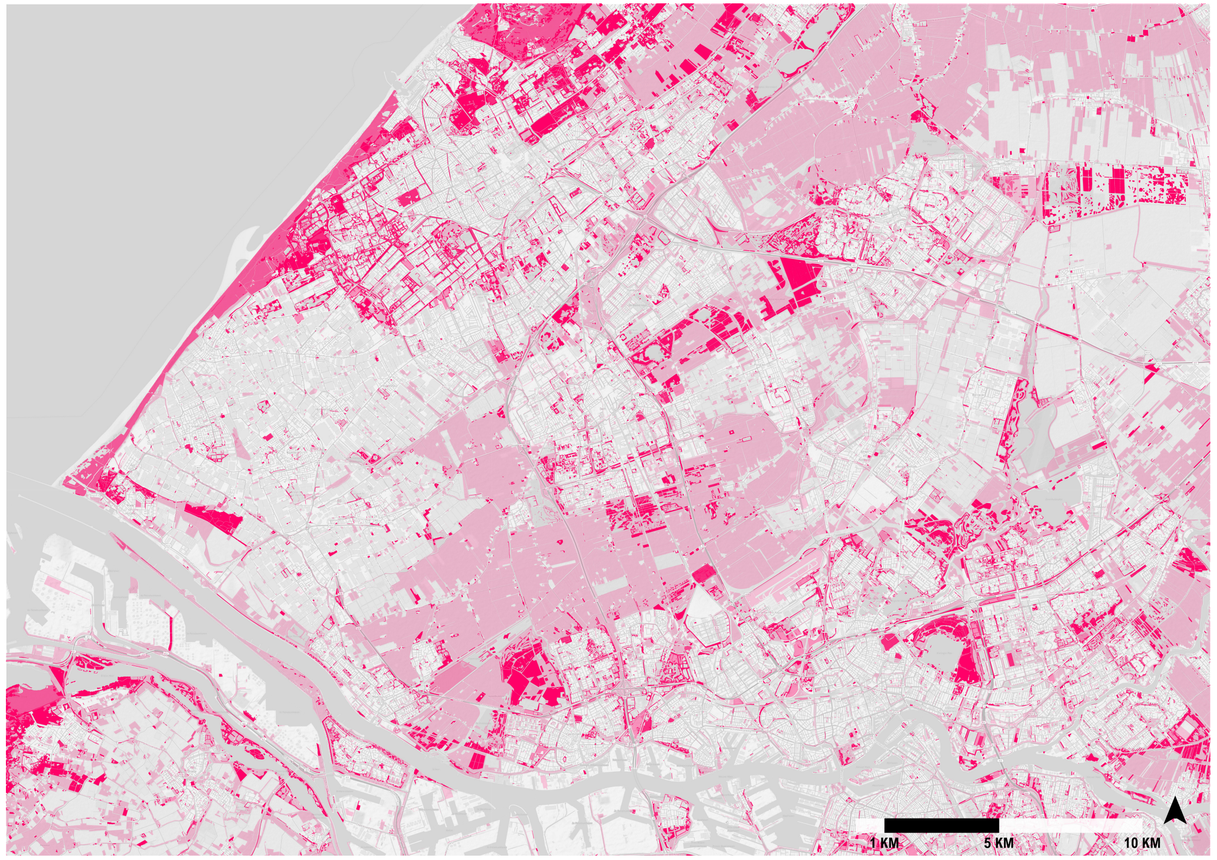
Tram (RandstadRail)

Tram

Bus

Regional Public Transport

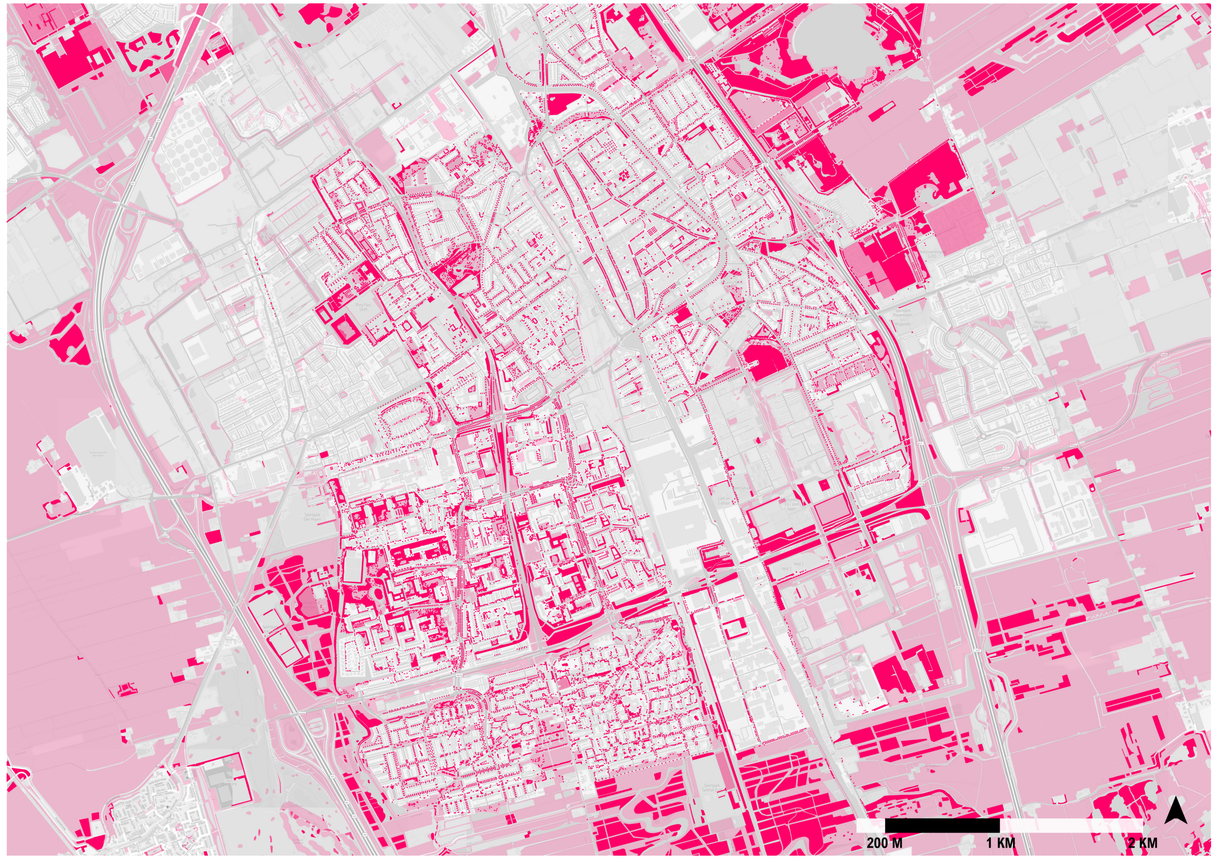
2.2 urban forestry



Regional Green Structure

(Urban) Forest

Grass



Local Green Structure

Tree

(Urban) Forest

Grass

2.2 urban forestry

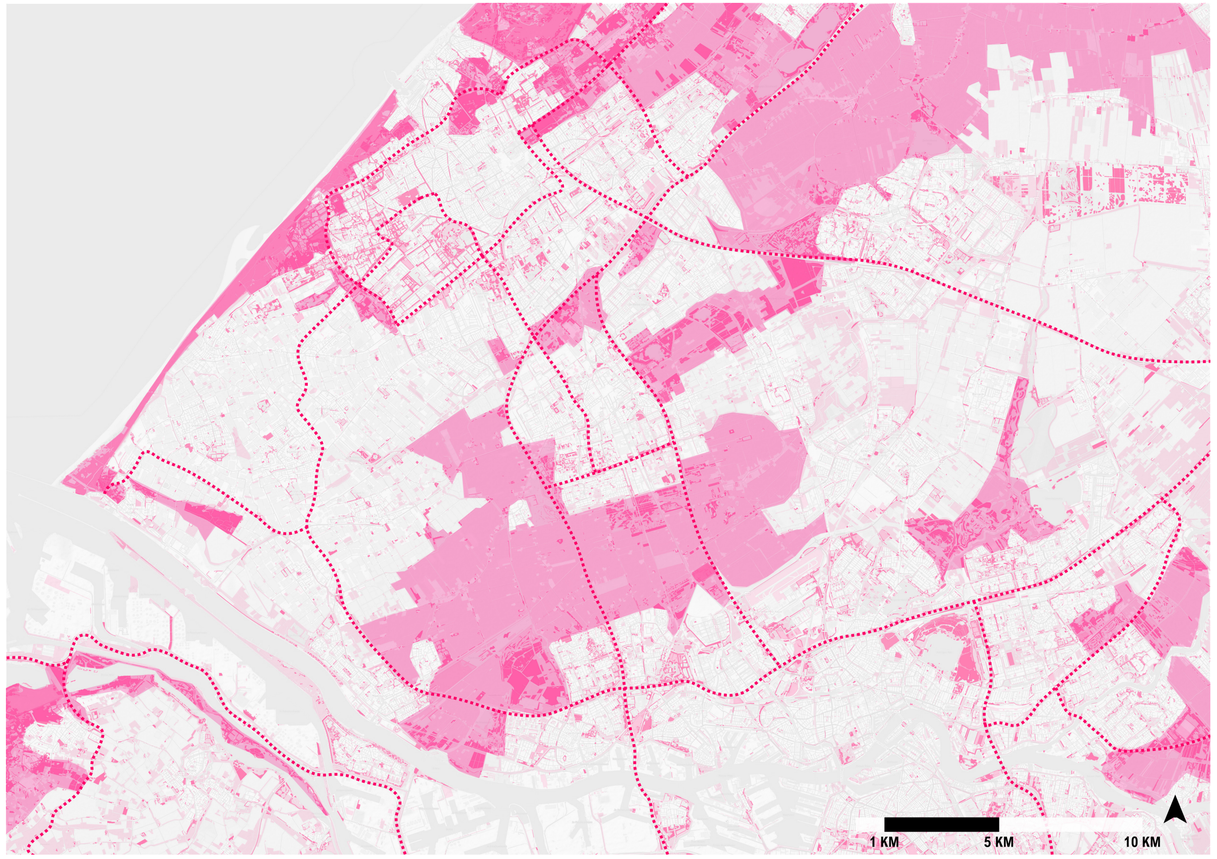


Green Structure of Delft

Green within Delft

Green outside of Delft

2.3 relation infrastructure and urban forestry

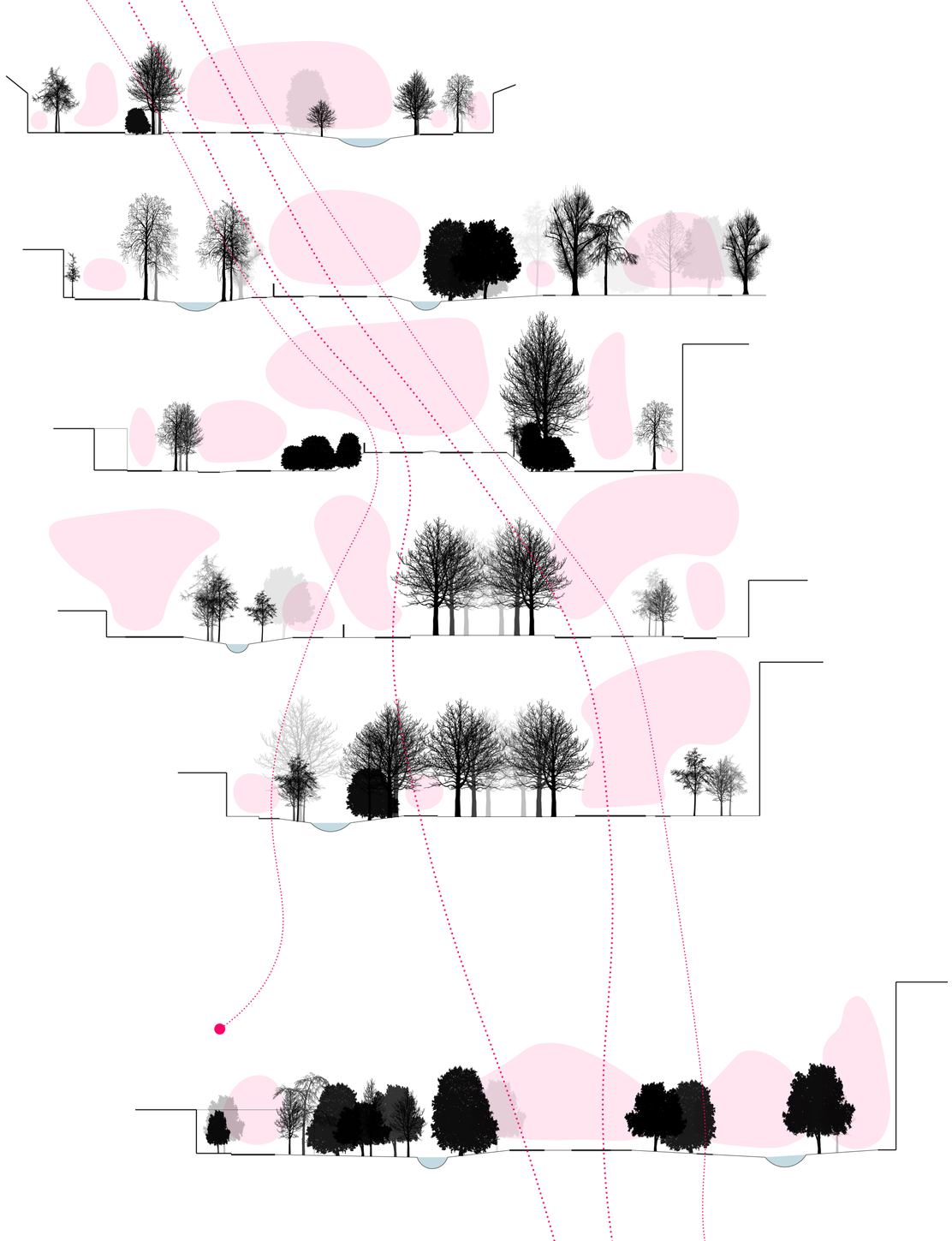


Regional Urban Forestry and Private Transport



Local Urban Forestry and Private Transport

2.3 relation infrastructure and urban forestry



3. the aesthetic side

3.1 theoretical framework

landscape aesthetics

aesthetic perception

perceptual (sensory) level
expressive (emotional) level
symptomatic (understanding) level
symbolic (imaginary) level

aesthetics & pleasure

aesthetics & sustainability

sources: (Nohl, 2001; Zangwill 2007; Treib, 1995; Meyer, 2008)



(Brian-B-Photography, 2012)

3.1 theoretical framework

loss of aesthetics

influence of economic and technical developments

loss of variety
loss of naturalness
loss of structuring
loss of regional identity
loss of vista quality

from comprehensive whole to alien landscape

sources: (Nohl, 2001)



('Power To The People by Brian Wallace', 2019)

3.1 theoretical framework

new aesthetic categories

the Sublime

the Beautiful

the Interesting

the Plain

sources: (Nohl, 2001)



The Sublime (Friedrich, 1821)



The Beautiful (Repton, 1805)



The Interesting ('Graduate Guide Birmingham)



The Plain ('Branches', n.d.) | Things to Do in Birmingham | Hallam', n.d.)

3.1 theoretical framework

aesthetics & urban forestry

non natural forests vs. natural forests

current trend more towards natural forests

sources: (Tyrväinen, Silvennoinen, & Kolehmainen, 2003)

aesthetics & infrastructure

visual experience

driver's attention > safety

The Blue Ridge Parkway

sources: (de Wit, 2016; DeSilets, Scott, Simonson, & Shurcliff, 1957)

3.1 theoretical framework



Planting Irregular Indigenous Species (source: Unlimited / Corbis, 2010)



Creating Vistas (source: 'A Blue Ridge Parkway Adventure in 10 Amazing Views', 2017)



The Serpentine Line (source: Thomas, 2008)

3.2 site analysis



Planting Scheme



Tree Species



Spatiality



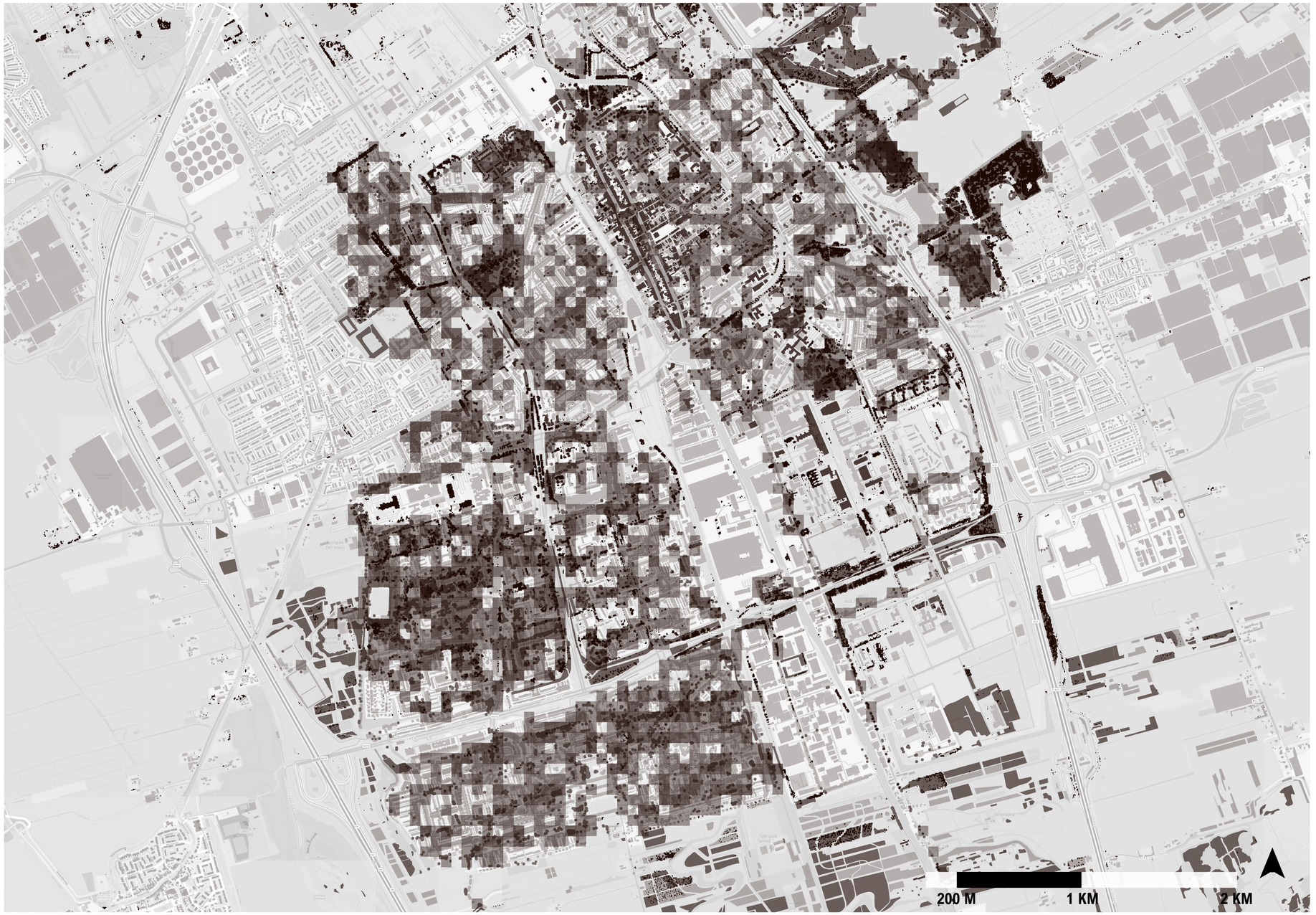
Human Elements



Maintenance

Plain **Interesting** **Beautiful** **Sublime**

3.2 site analysis



Aesthetics of the Urban Forest of Delft

3.2 site analysis

The Sublime

The Beautiful

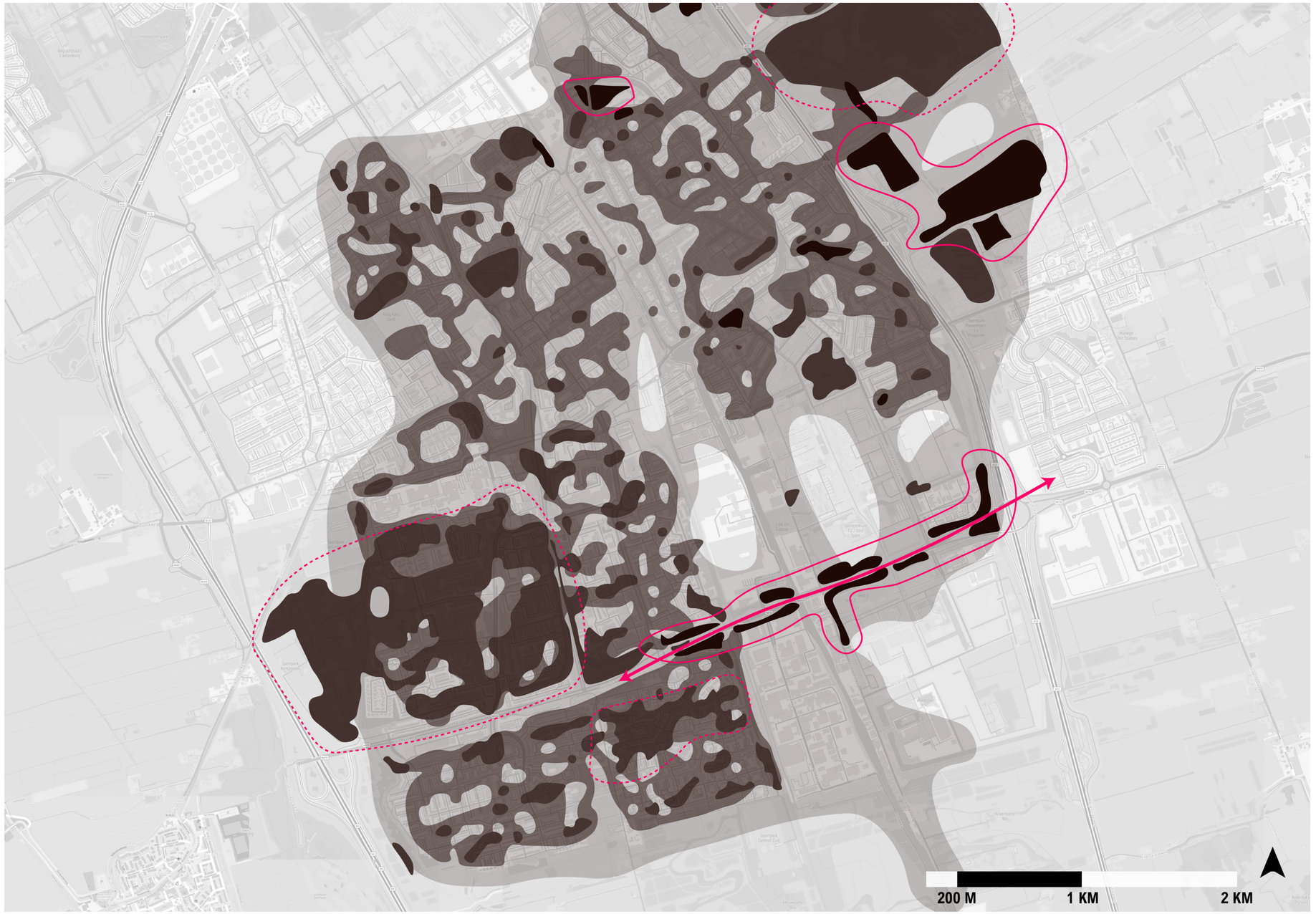
The Interesting

The Plain

large beautiful areas

sublime areas

Kruithuisweg = Sublime

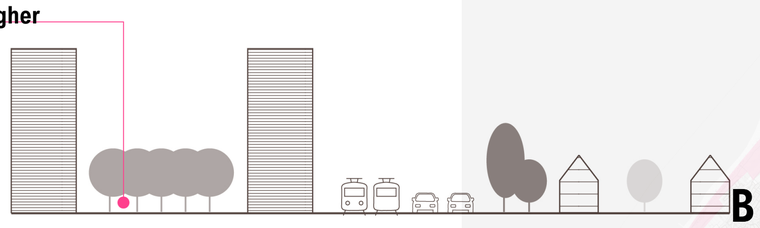


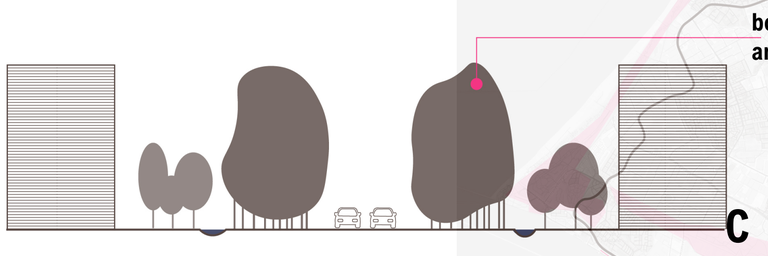
Aesthetics of the Urban Forest of Delft

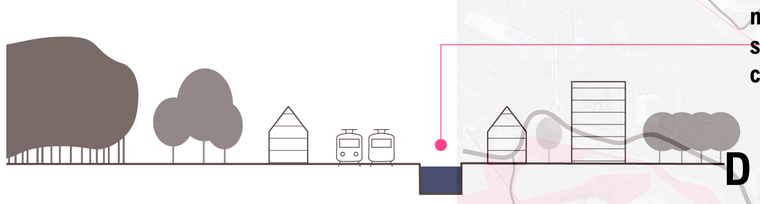
4. vision

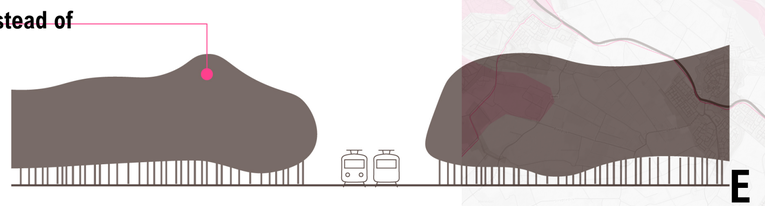
4.1 regional vision

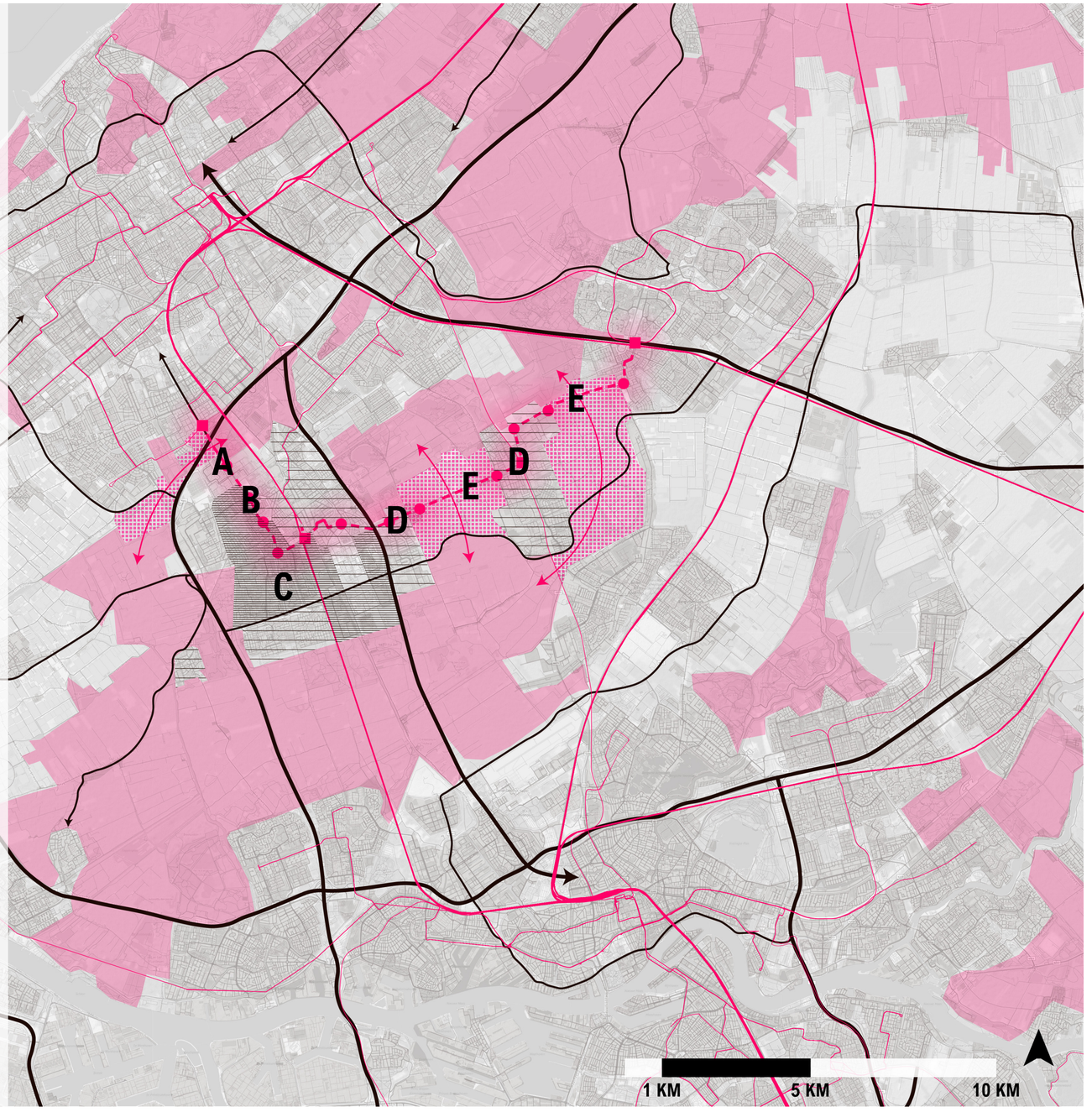












4.2 local vision



green areas

tram line & stops

high density areas

low density areas

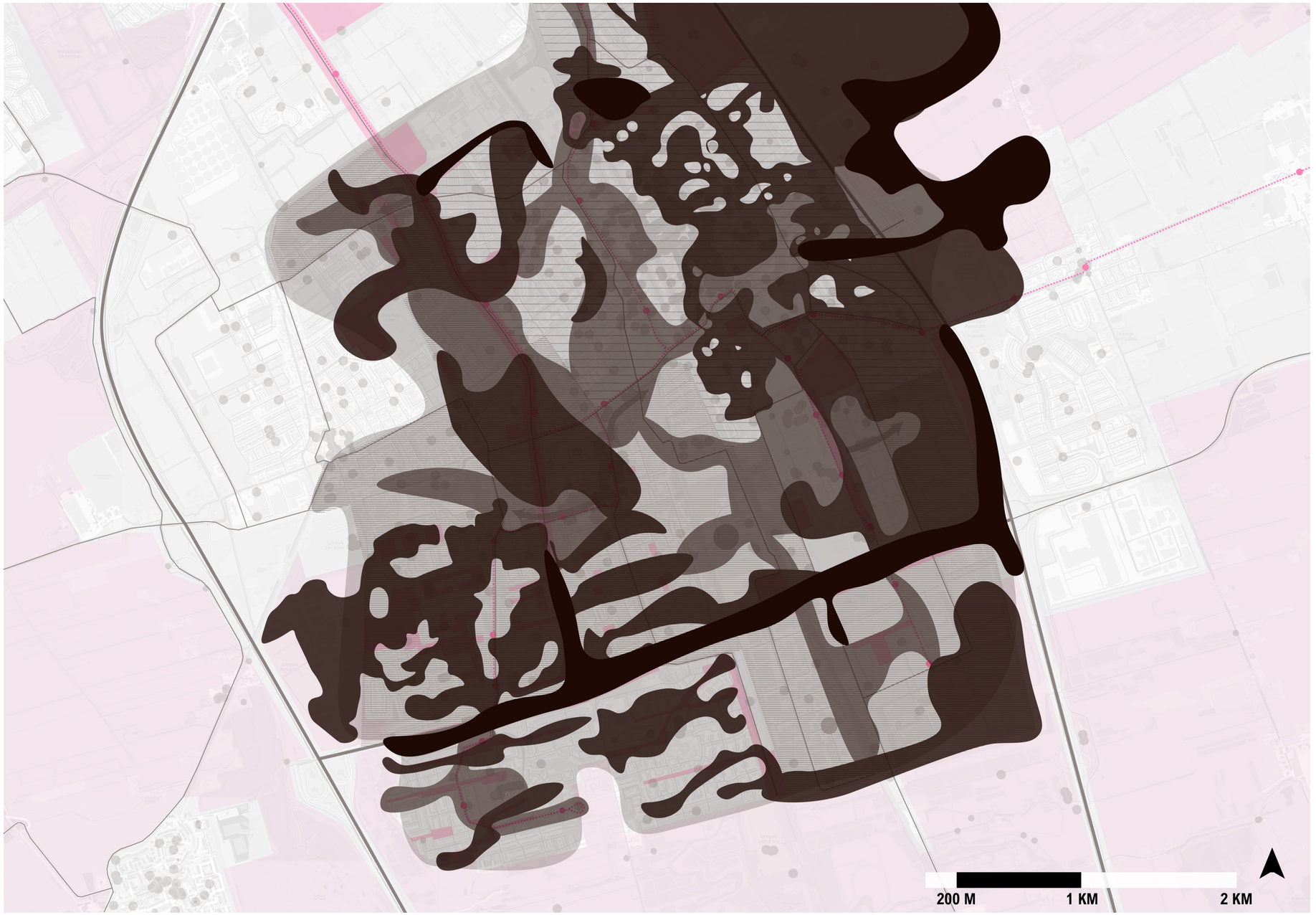
extension of amenties

upgrading road

new intersection

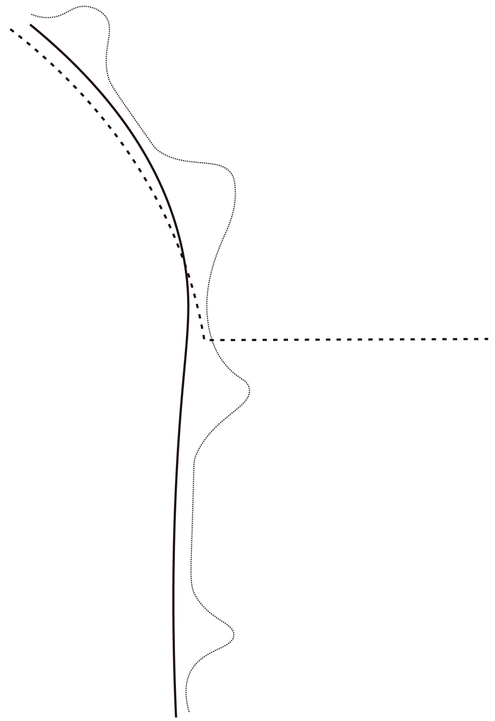
Aesthetics of the Urban Forest of Delft

4.2 local vision



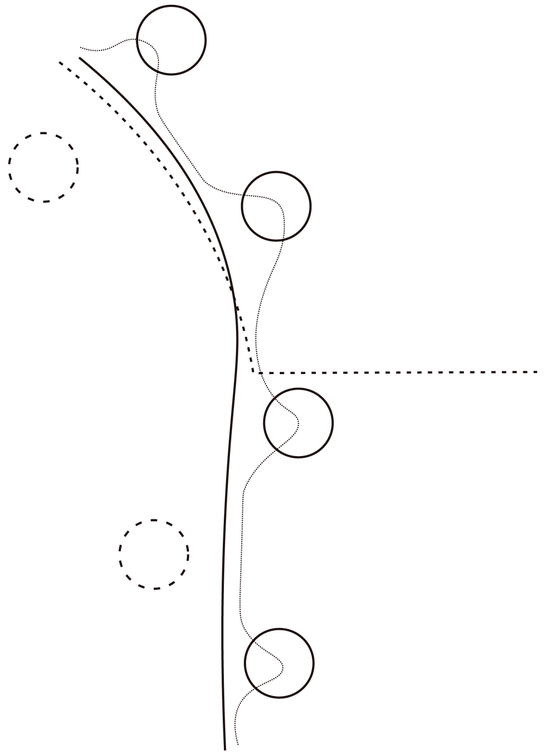
Aesthetics of the Urban Forest of Delft

4.3 vision on PBL



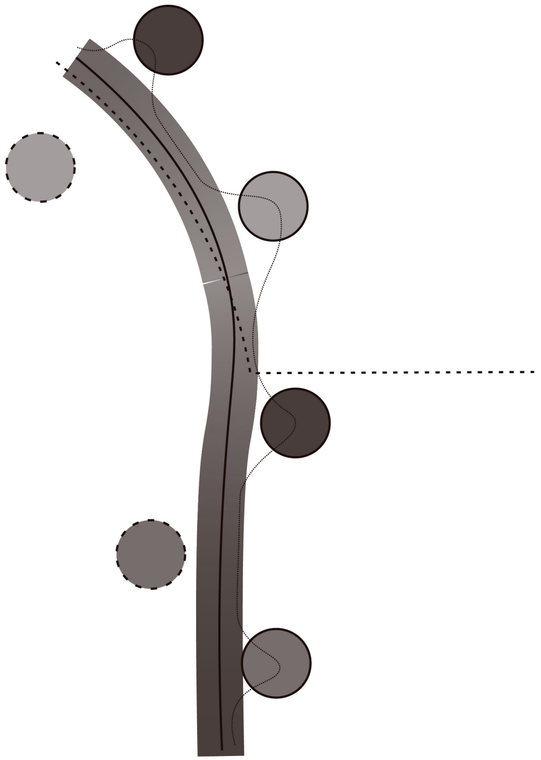
three lines with different speeds

4.3 vision on PBL



rooms

4.3 vision on PBL



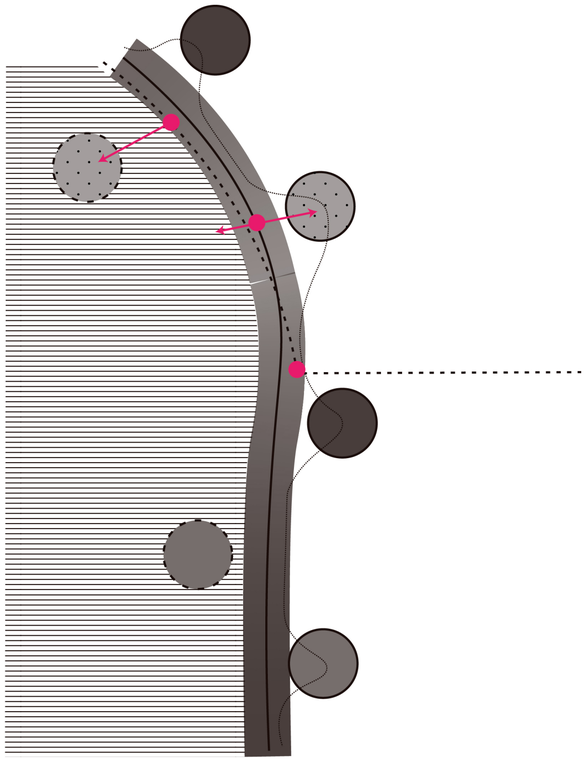
rooms with different purposes and aesthetic qualities

The Sublime

The Beautiful

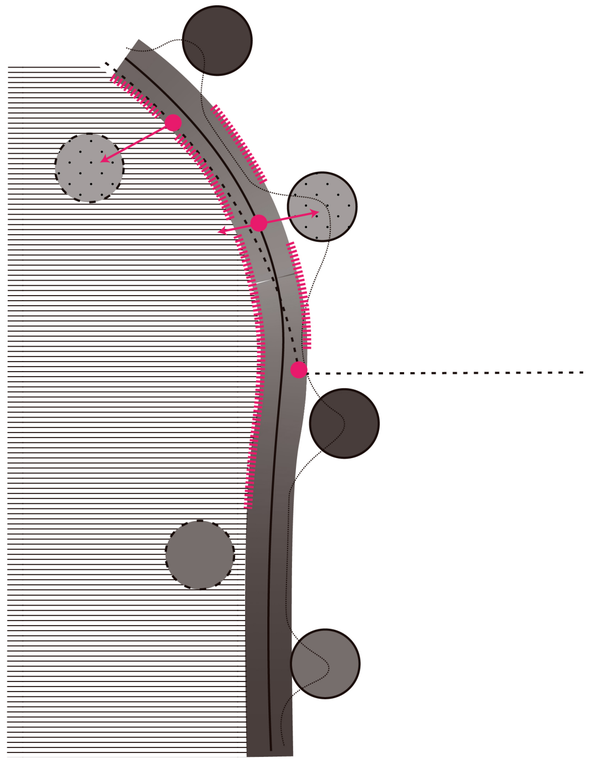
The Interesting

4.3 vision on PBL



tram stops; higher building density & connecting amenities

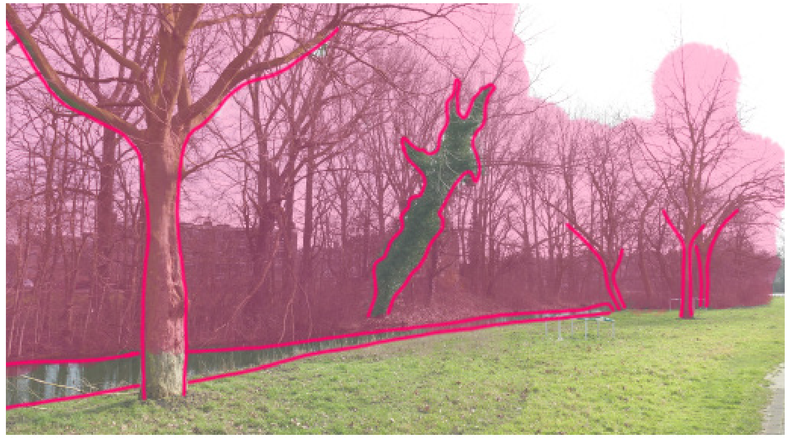
4.3 vision on PBL



tree lanes to guide direction and give coherence

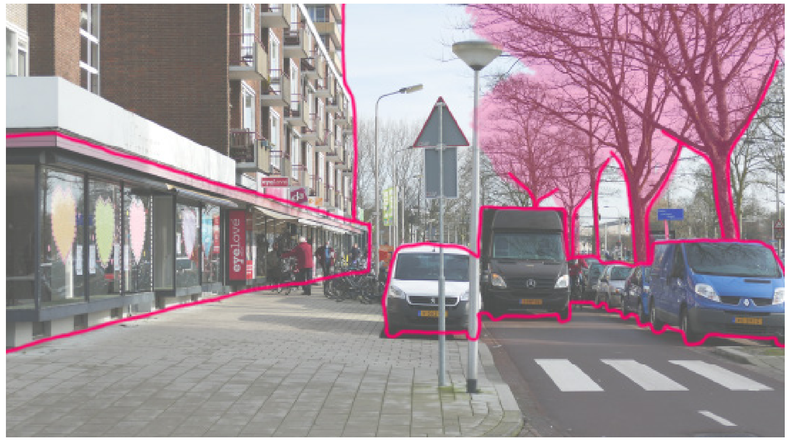
5. design


5.1 location one

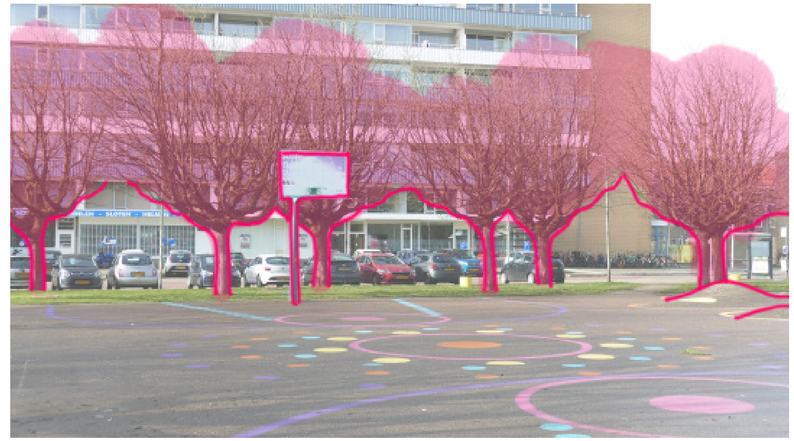







eyelove



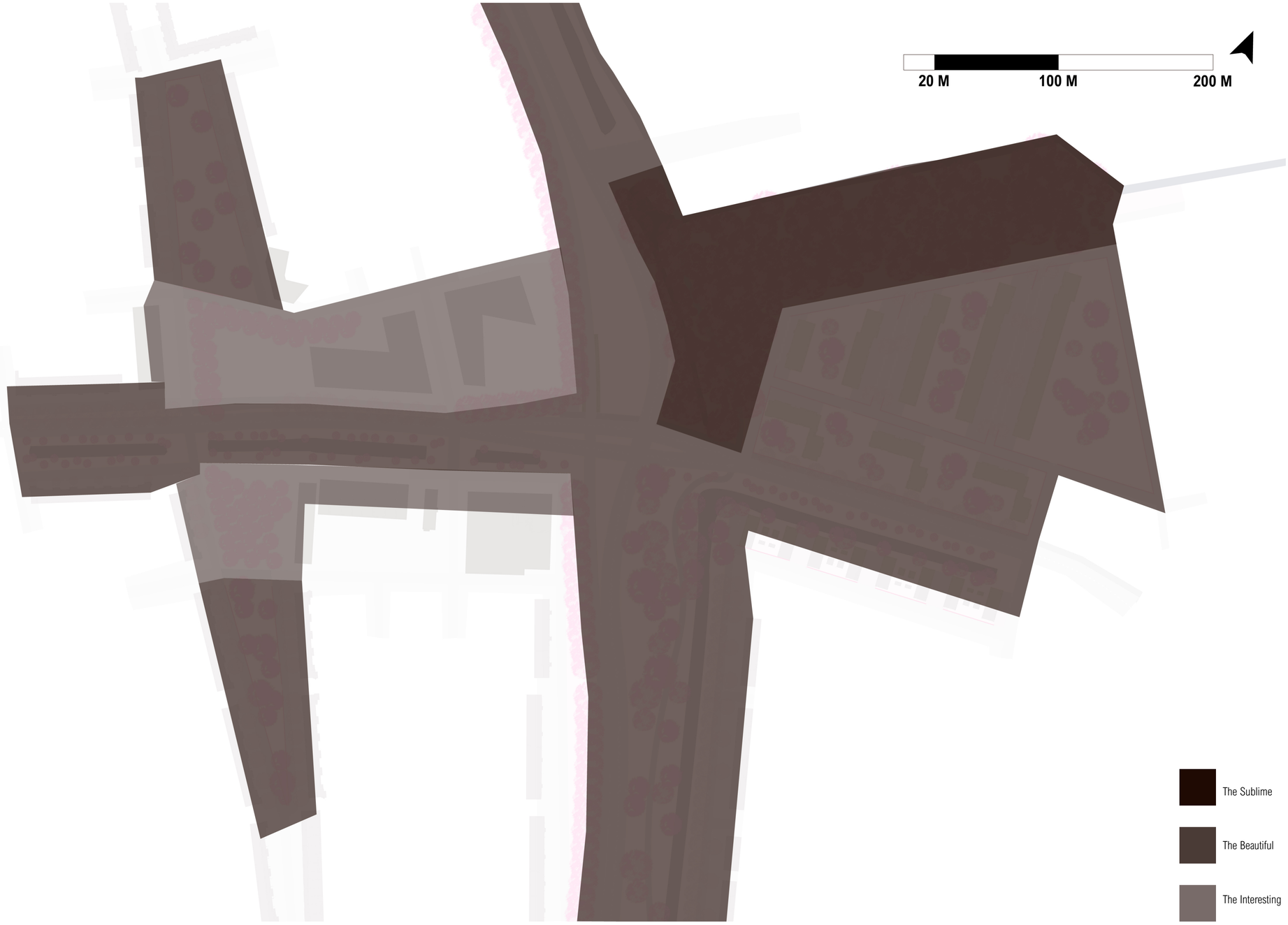


5.1 location one - masterplan



- green and ecology
- water structure
- buildings and recreation
- infrastructure

5.1 location one - aesthetics

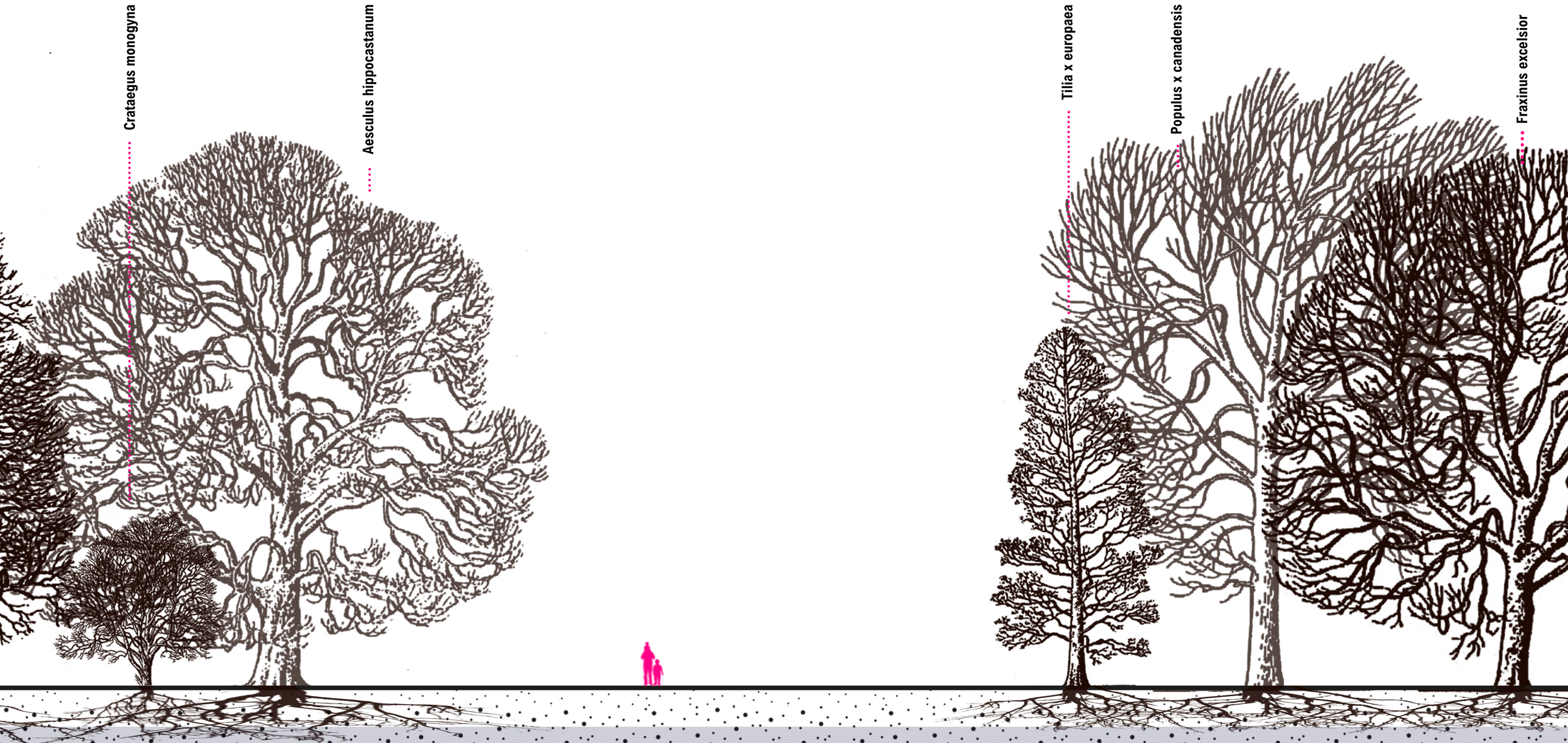


5.1 location one - green



5.1 location one - water





‘sublime’ forest/ phase 1: current situation

scale 1:200



‘sublime’ forest/ phase 2: 10 years

scale 1:200



‘sublime’ forest/ phase 3: 30 years

scale 1:200



‘sublime’ forest/ phase 4: 60 years

scale 1:200







5.1 location one - buildings & recreation

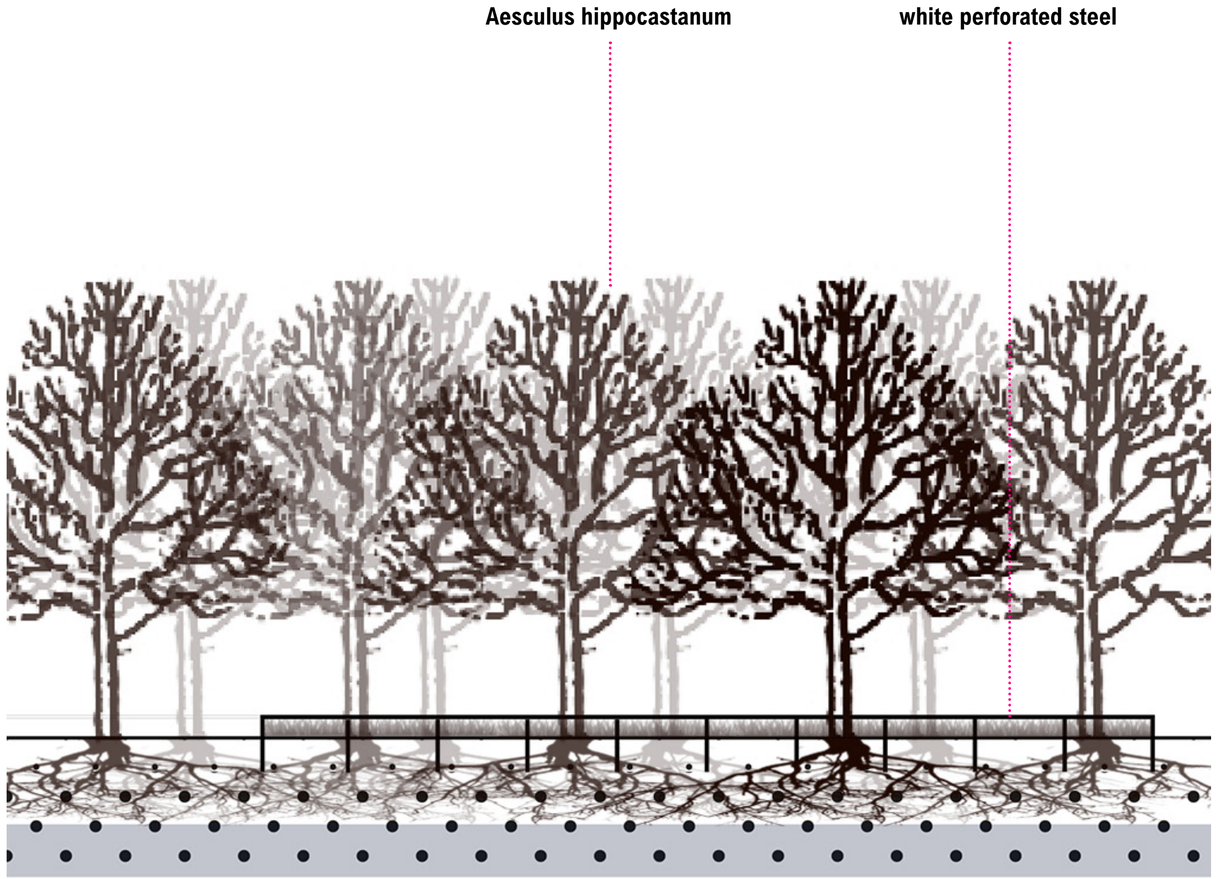
recreational bicycle & pedestrian path

pedestrian path

place to sit down





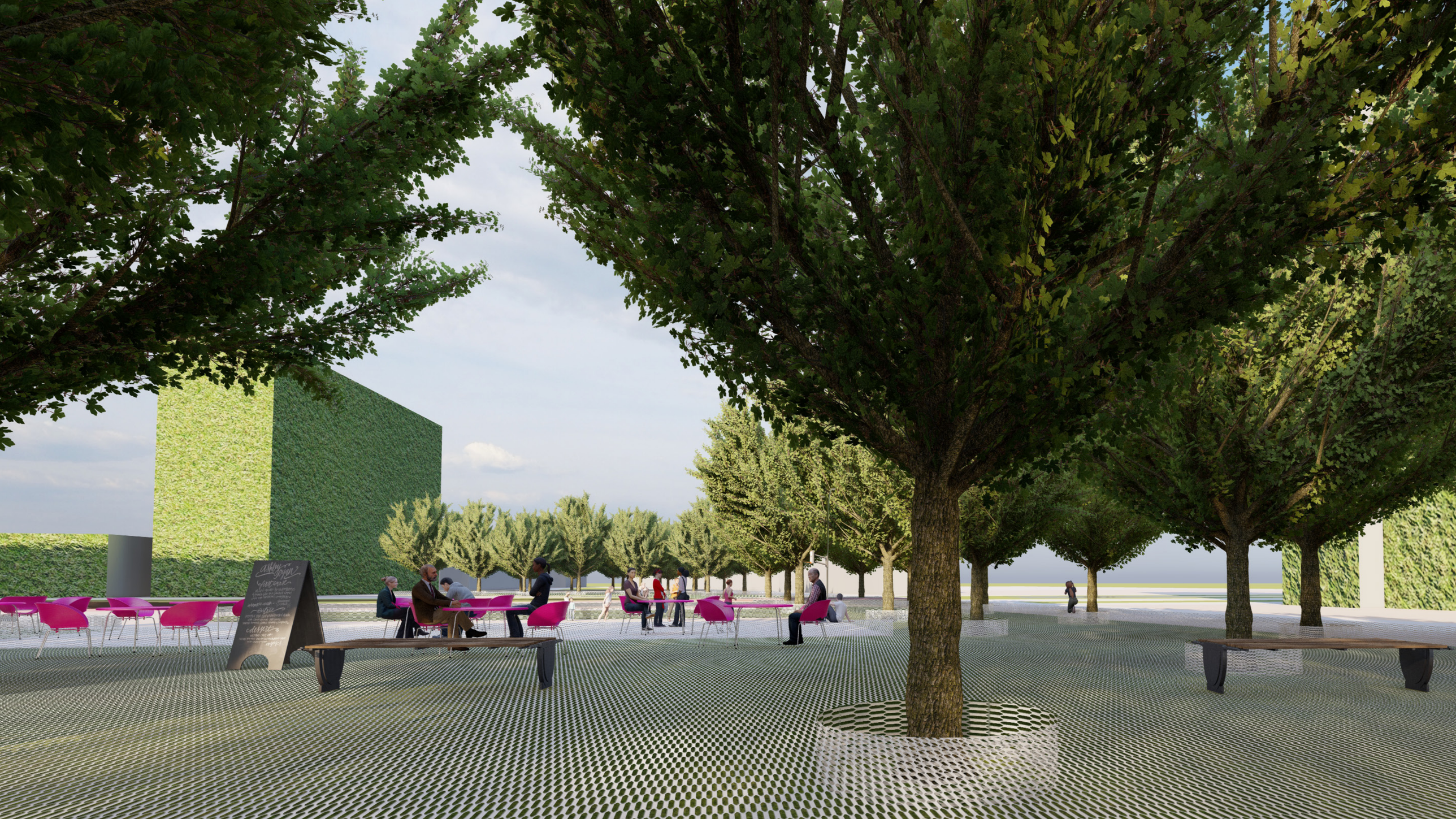


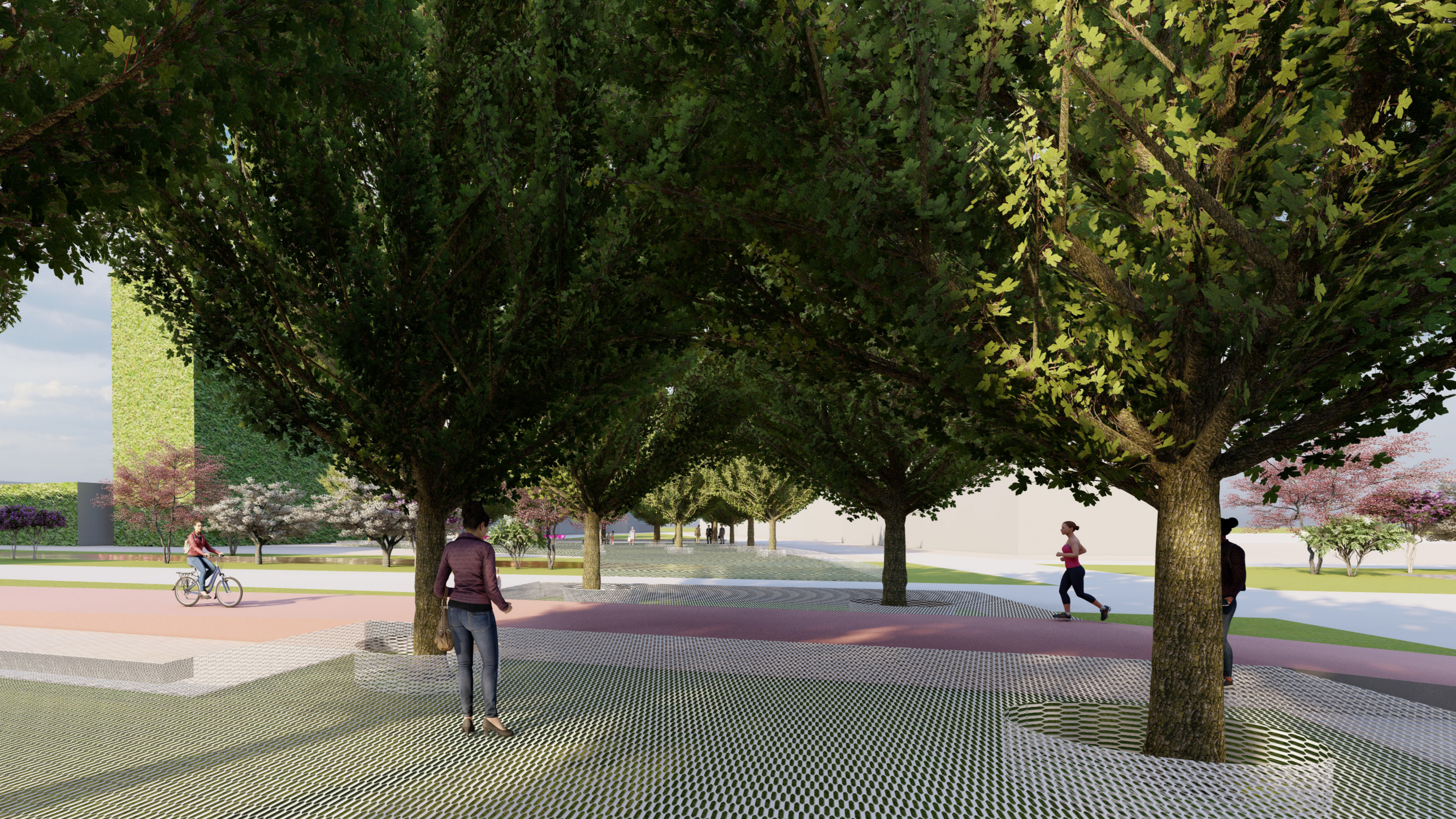
section AA’

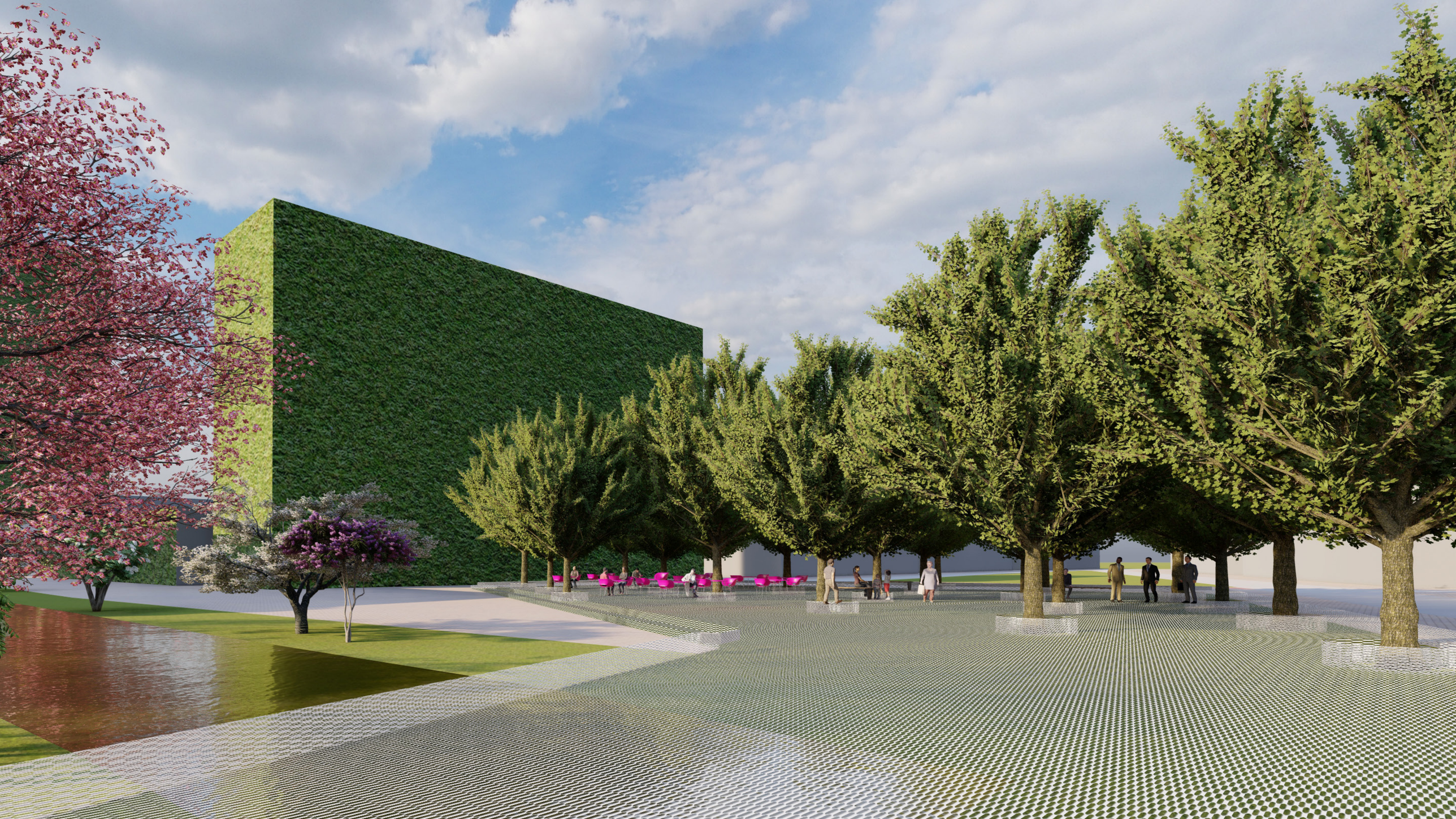
scale 1:100

‘interesting’ recreational deck



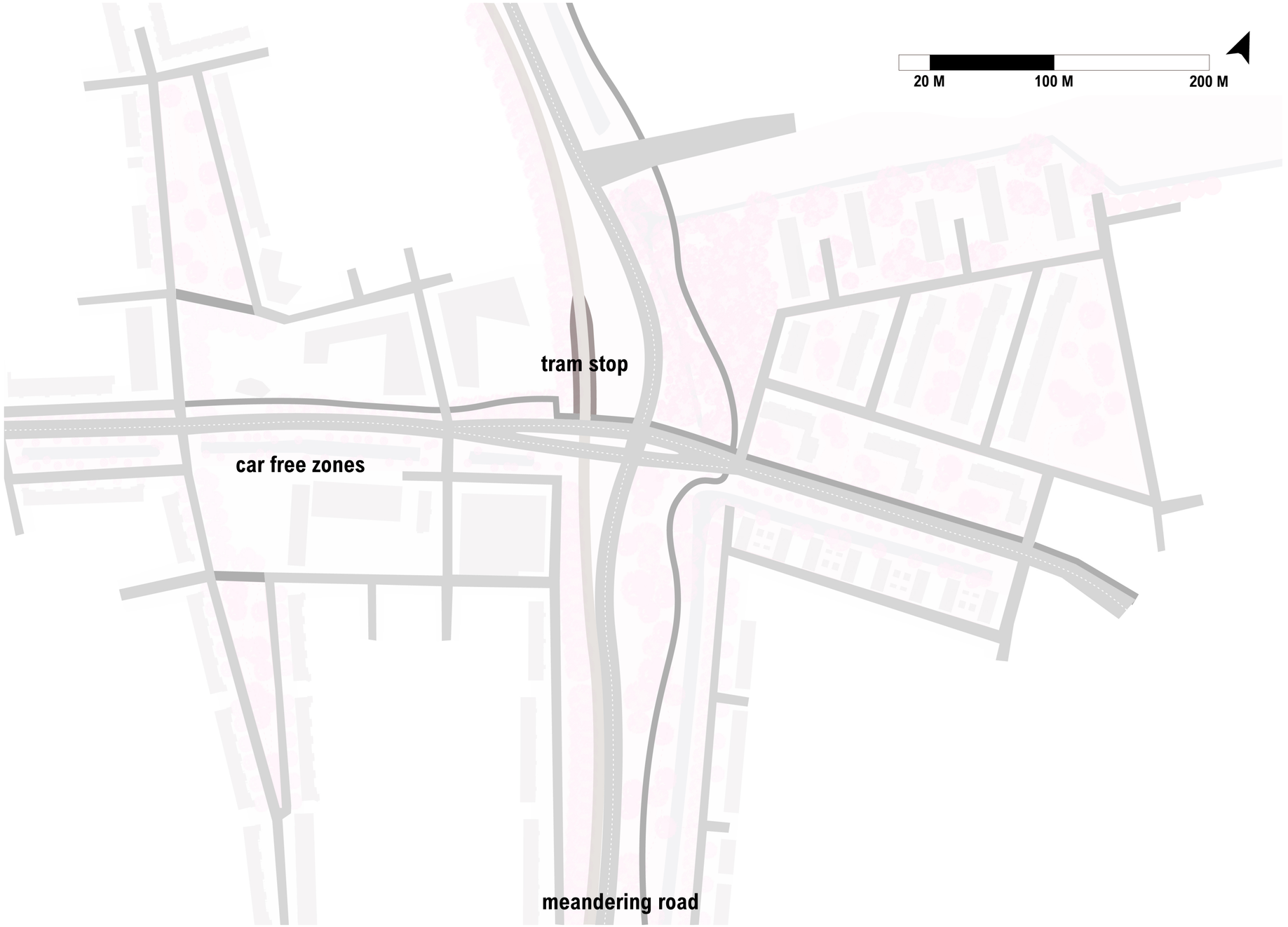


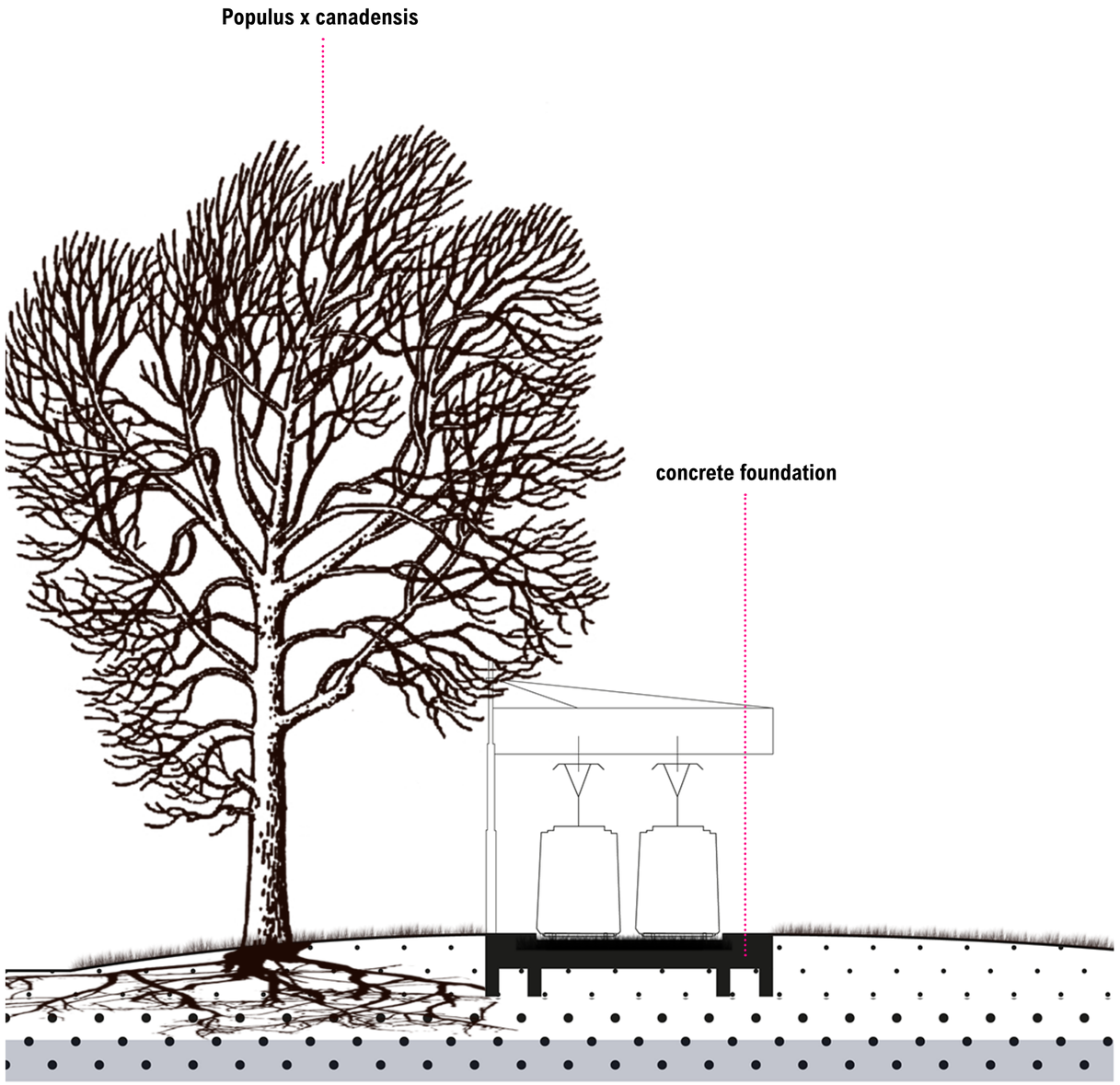


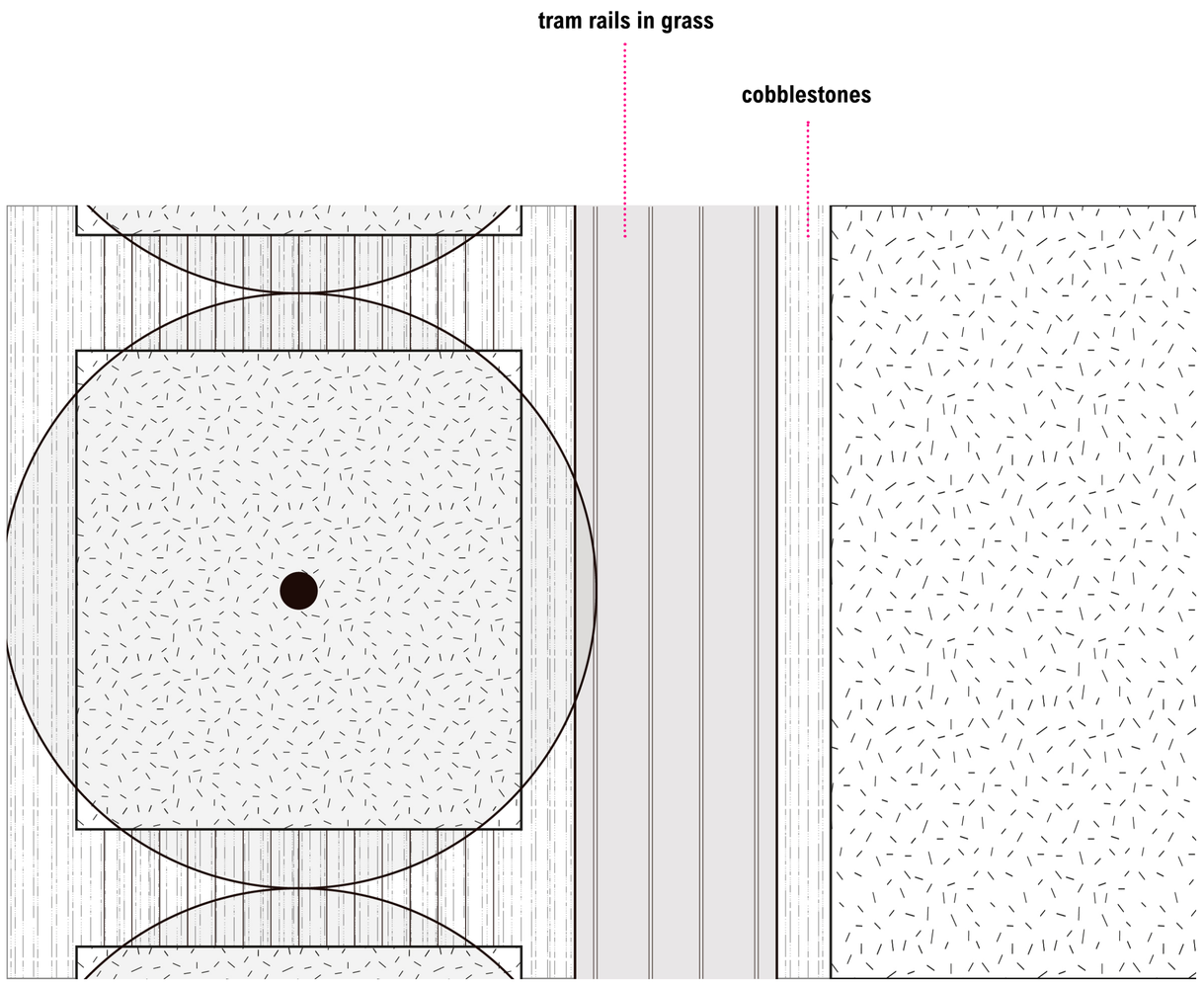




5.1 location one - infrastructure







scale 1:200

‘beautiful’ tram stop

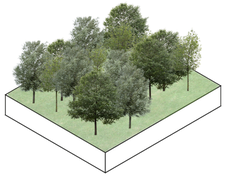

Change can be a very good thing.
Serving you better than ever.
YELLOW BIKE


Change can be a very good thing.
Serving you better than ever:
CENEX
1
2

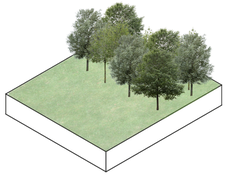


5.2 toolbox > sublime

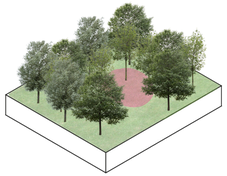
composition



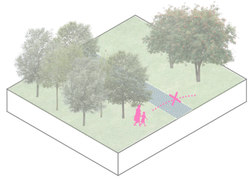
dense, informal forest



large, sudden contrast

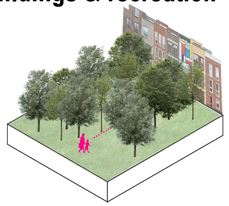


enclosed spaces

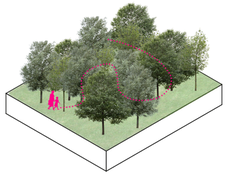


unreachable places

buildings & recreation

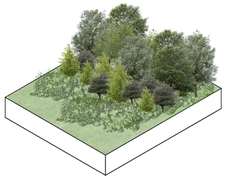


no human elements

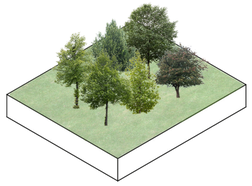


moving through nature

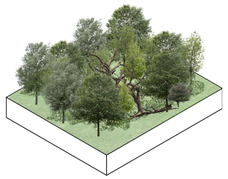
green & water



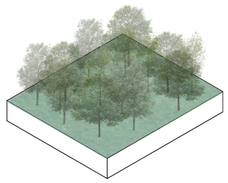
different layers



great variety in species

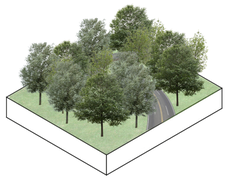


no maintenance

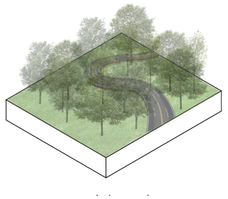


water storage

infrastructure



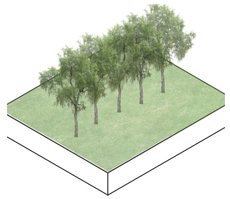
road as tunnel



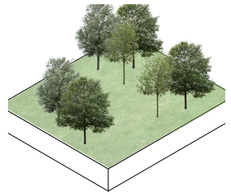
meandering road

5.2 toolbox > beautiful

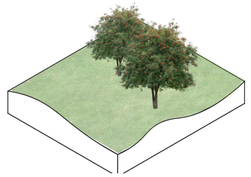
composition



formal planting

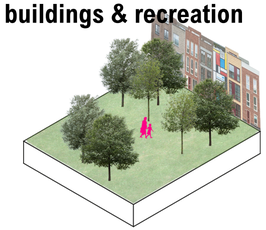


sparse, informal planting

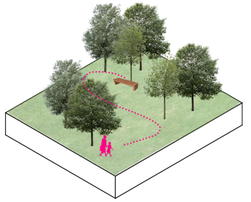


open, hilly spaces

buildings & recreation

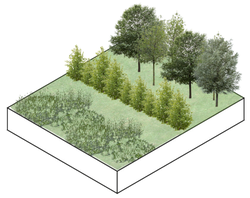


buildings as background

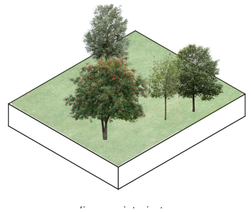


moving through & sitting in nature

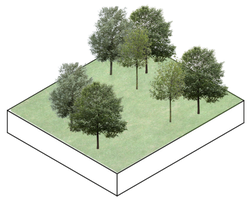
green & water



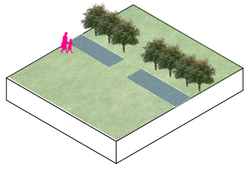
different, seperates layers



variety in species

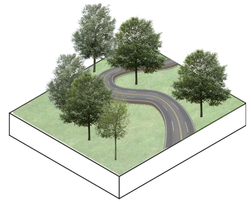


maintenance

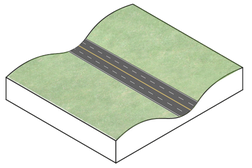


visual connection between water structures

infrastructure



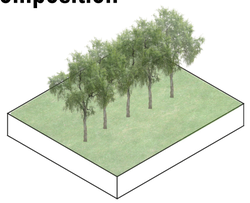
meandering road



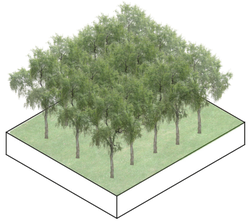
submerged in hills

5.2 toolbox > interesting

composition

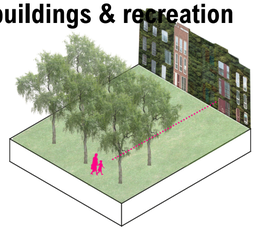


formal planting

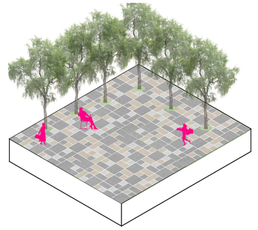


small spaces

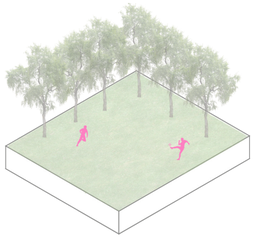
buildings & recreation



interaction with buildings

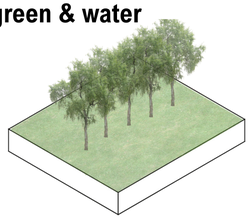


recreation on hard surface

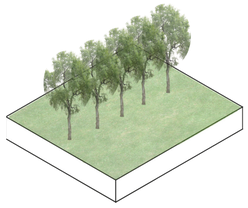


recreation on soft surface

green & water

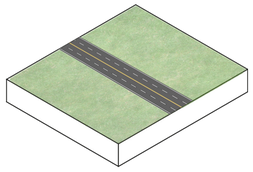


little variety in species

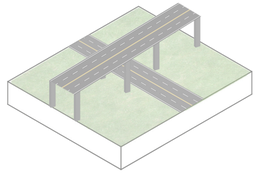


extreme maintenance

infrastructure



straight road



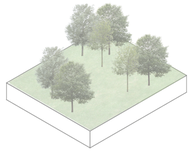
visible technical infrastructure

5.3 application of toolbox

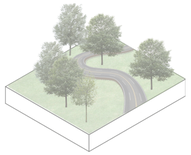


5.3 application of toolbox > location two

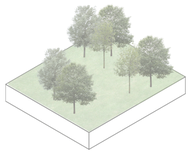
beautiful



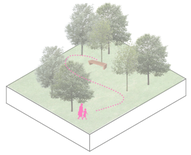
sparse informal planting



meandering road

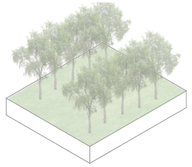


maintenance

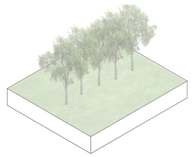


moving through & sitting in nature

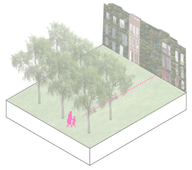
interesting



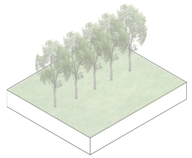
formal planting: double lane



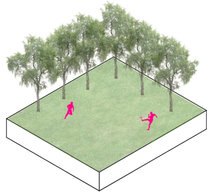
little variety in tree species



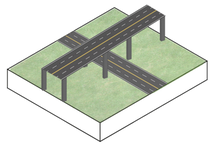
interaction with buildings



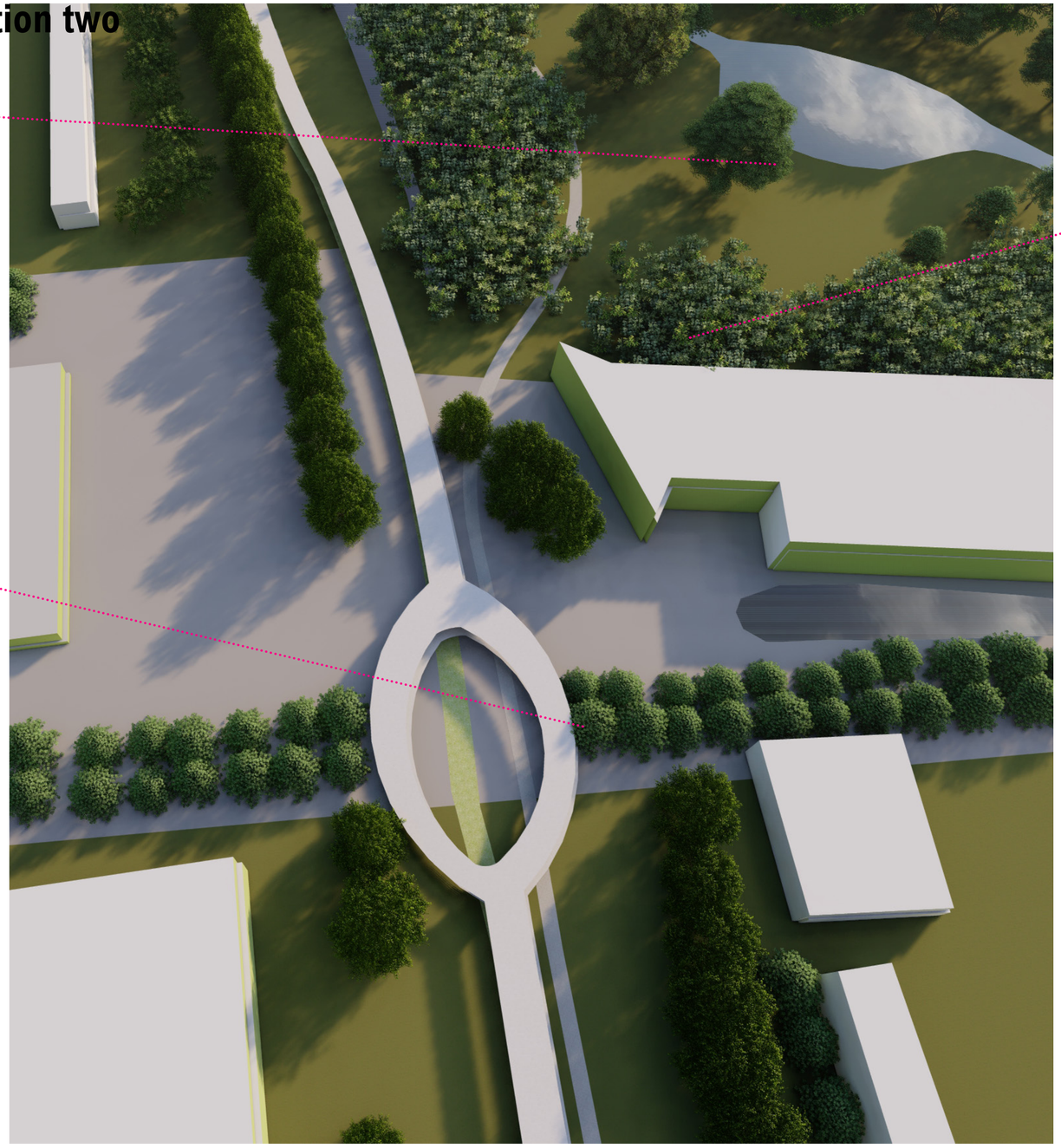
extreme maintenance



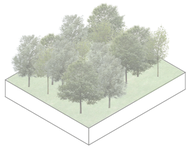
recreation on soft surface



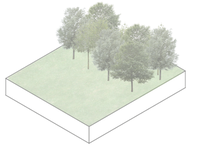
visible technical infratructure



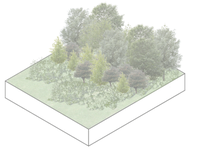
sublime



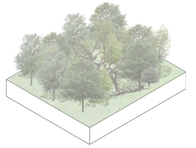
dense, informal



large or sudden contrasts



different layers

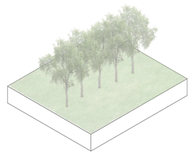


no maintenance

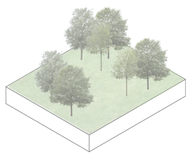
5.3 application of toolbox > location three



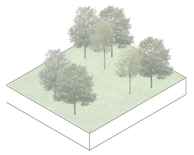
beautiful



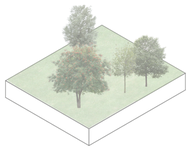
formal planting



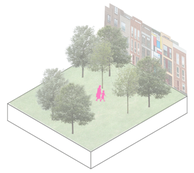
sparse informal planting



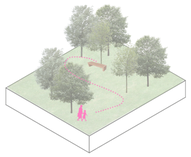
maintenance



medium variety in tree species

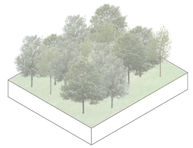


buildings as background

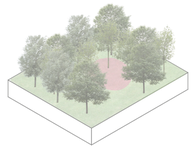


moving through & sitting in nature

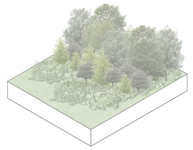
sublime



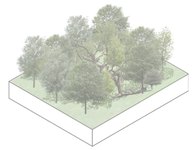
dense, informal



hidden spaces



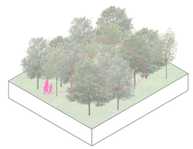
different layers



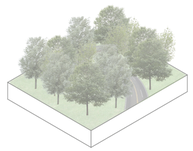
no maintenance



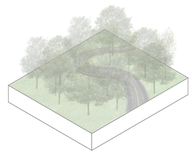
no human elements



moving through nature



road as tunnel

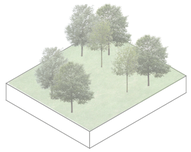


meandering road

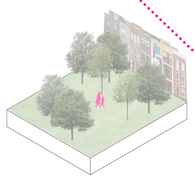
5.3 application of toolbox > location four



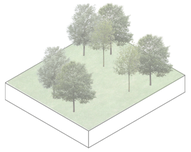
beautiful



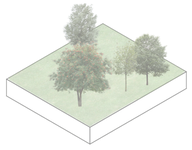
sparse informal planting



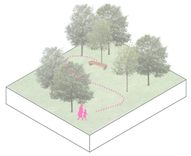
buildings as background



maintenance

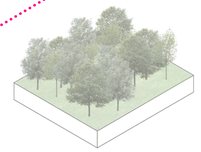


medium variety in tree species

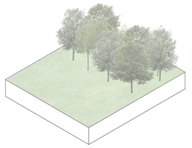


moving through & sitting in nature

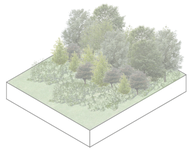
sublime



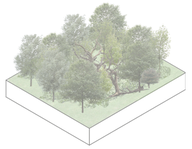
dense, informal



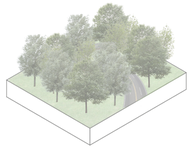
large or sudden contrasts



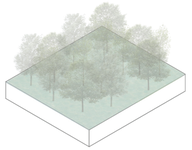
different layers



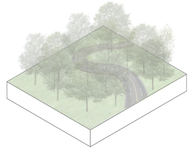
no maintenance



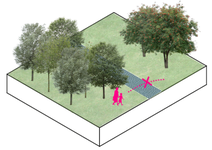
road as tunnel



water storage



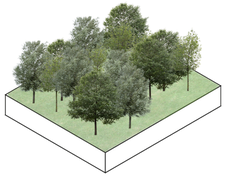
meandering road



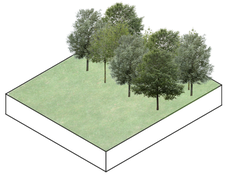
unreachable places

5.4 adding to toolbox > sublime

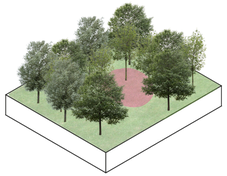
composition



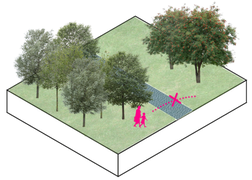
dense, informal forest



large, sudden contrast

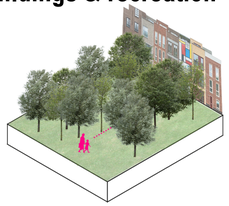


enclosed spaces

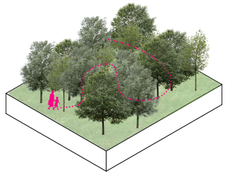


unreachable places

buildings & recreation

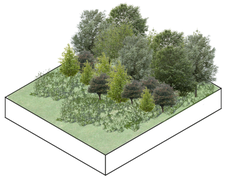


no human elements

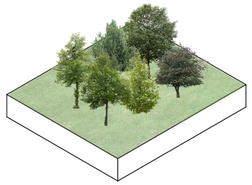


moving through nature

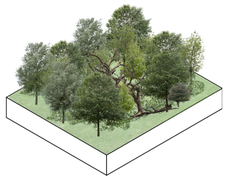
green & water



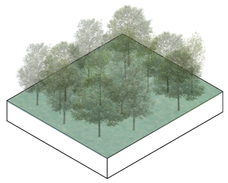
different layers



great variety in species

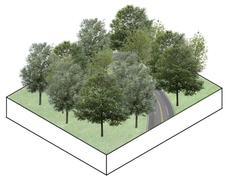


no maintenance

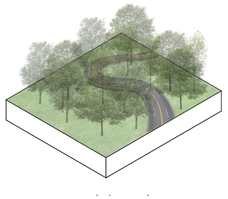


water storage

infrastructure



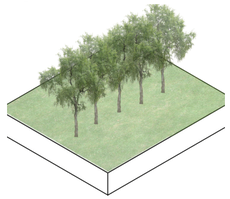
road as tunnel



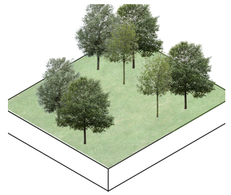
meandering road

5.4 adding to toolbox > beautiful

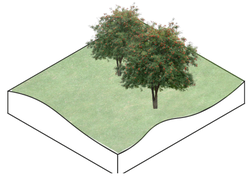
composition



formal planting

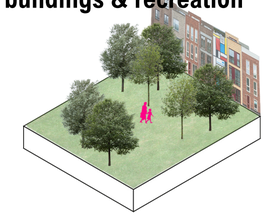


sparse, informal planting

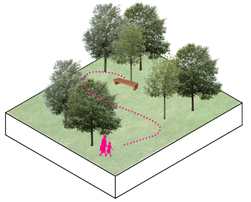


open, hilly spaces

buildings & recreation

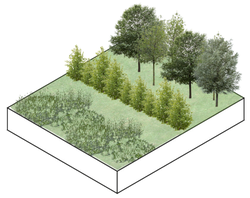


buildings as background

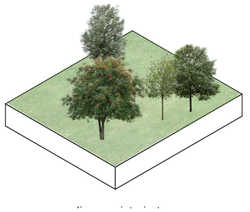


moving through & sitting in nature

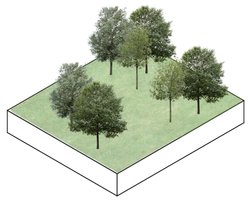
green & water



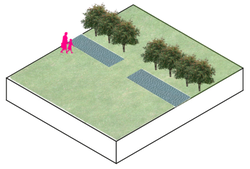
different, seperates layers



variety in species

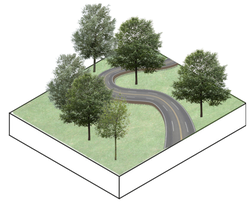


maintenance

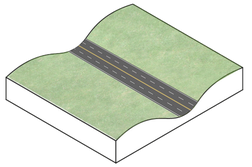


visual connection between water structures

infrastructure



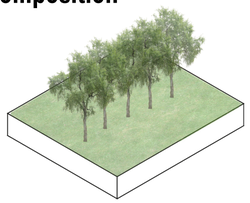
meandering road



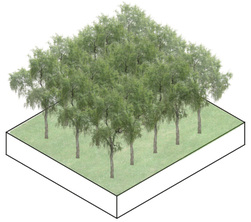
submerged in hills

5.4 adding to toolbox > interesting

composition

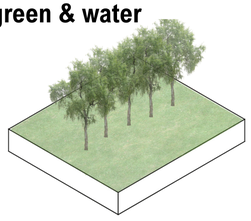


formal planting

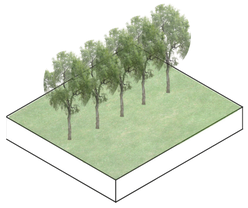


small spaces

green & water

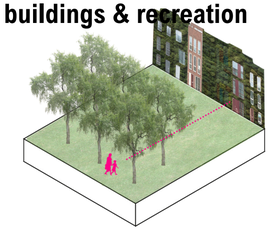


little variety in species

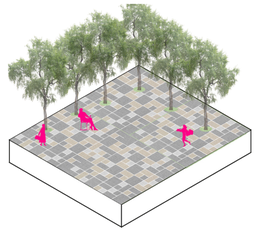


extreme maintenance

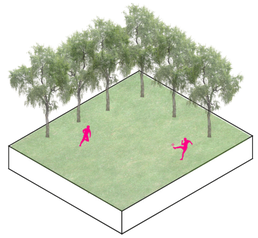
buildings & recreation



interaction with buildings

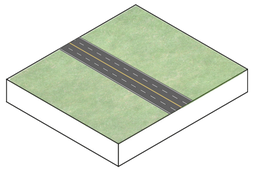


recreation on hard surface

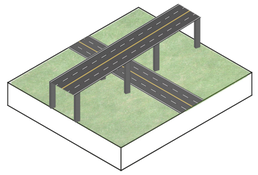


recreation on soft surface

infrastructure



straight road



visible technical infrastructure

5.5 experience of the Prinses Beatrixlaan by car



6. conclusion & reflection

main question

What is the potential of combining urban forestry, infrastructure and aesthetic experience with each other?

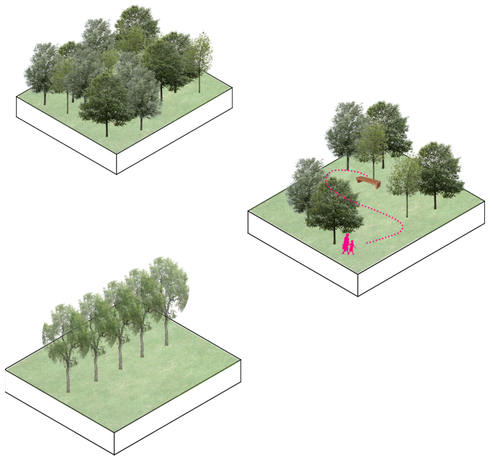
visitor



+ space for recreation
+ overall improved living conditions

- relatively small areas with the same aesthetic experience

designer



+ can give a clear direction to a vision and design
+ can create a coherent and integral design

- does not necessarily give a good design > little focus on details
- difficult realization of a project this size

'nature'



+ designated space for nature to develop
+ more conscious design of urban forestry

- relatively small areas
- not widely appreciated yet

The Agency of Aesthetics

Exploring the potential of Aesthetic Urban Forest Infrastructure

Graduation P5 - 01/07/2021
Urban Forestry Lab

Willemijn Schreur - 4380096

1st mentor: René van der Velde
2nd mentor: Maurice Harteveld