ROUTE

Maxime Selling 4431014 P4 Hyperbody 4-10-17

L8OOP^4

Assignment: Develop around 7000m2
studenhousing on the Green Village Campus

Vision Green Village:
"Create a sustainable future"

Architecture
IO
AULA

CT

EWU

Green Village

Parking

Bus/Tram

Sports

Aerospace
Reactor institute

NORTH

A sustainable future start with students

PROBLEM: STRESS WITH STUDENTS

78% thinks performance pressure too high

60% experience stress on a weekly base

46% sometimes stays home because of stress

40% has psychological complains

35% are afraid for burnouts

How can we solve this architecturally?

-Space for social activities
-Interaction with nature
-Peaceful surrounding for work live and meet
-Spaces isolated from chaos

Gate

Benches

Shelter

Scooters
30 scooterplaces

7 (36<48m2)
Collective:
Laundry
Installations
Janitor

Nature:
Preserved trees
Benches

75 (36m2)
Bachelor:
Entree
Installations
Bathroom
Kitchen
Dining table
Livingroom
Desk
Bedroom
Storage

Tables

Tropical Garden

Restaurant

Benches

38 (42m2)
Master:
Entree
Installations
Bathroom
Kitchen
Dining table
Livingroom
Desk
Bedroom
Storage

Vegatable Garden

Gallery

Bikes
150 bikesplaces

8 (48m2)
Phd:
Entree
Installations
Bathroom
Kitchen
Dining table
Livingroom
Desk
Bedroom
Storage

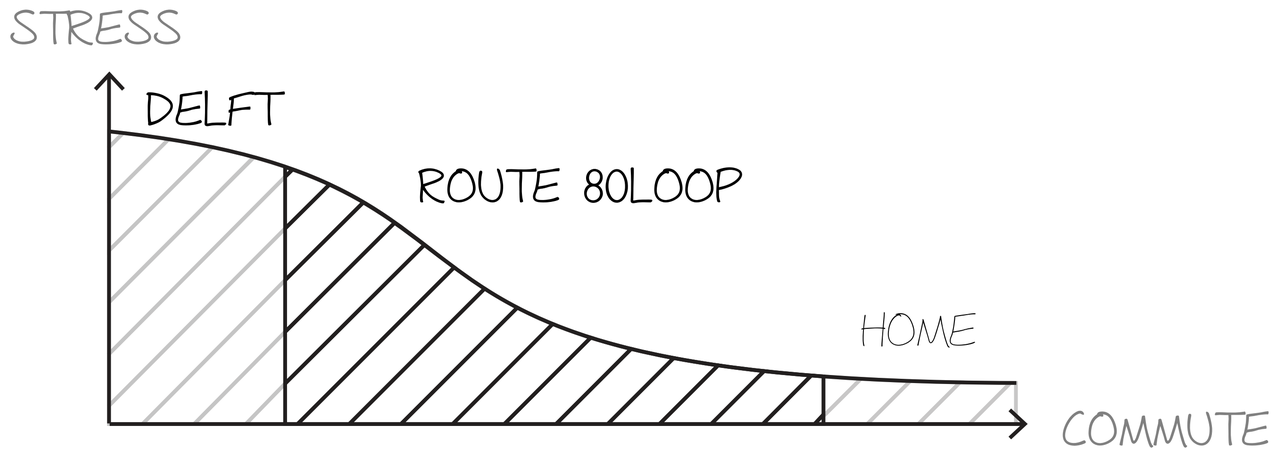
Shelter

Tables

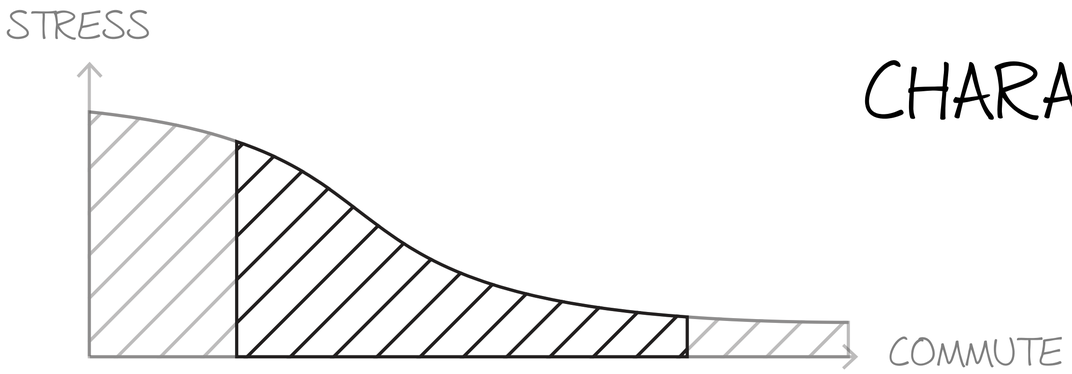
Cars
25 parkingplaces

Gate

Bar

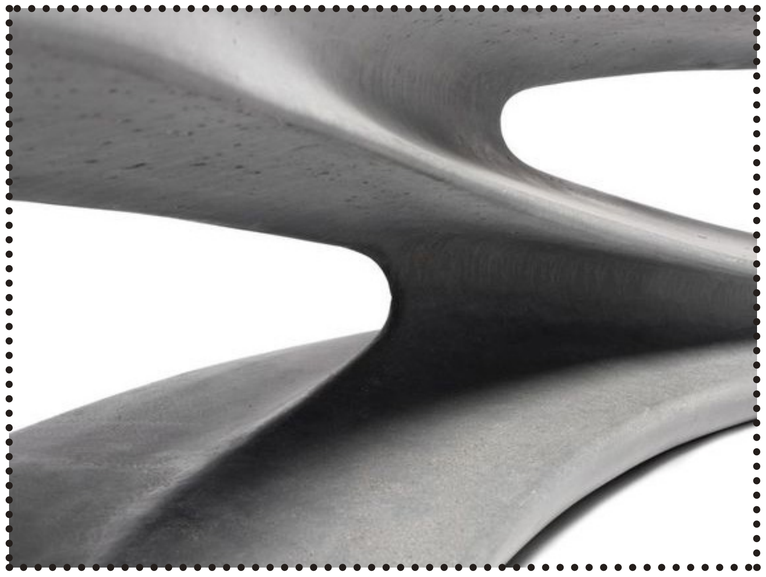


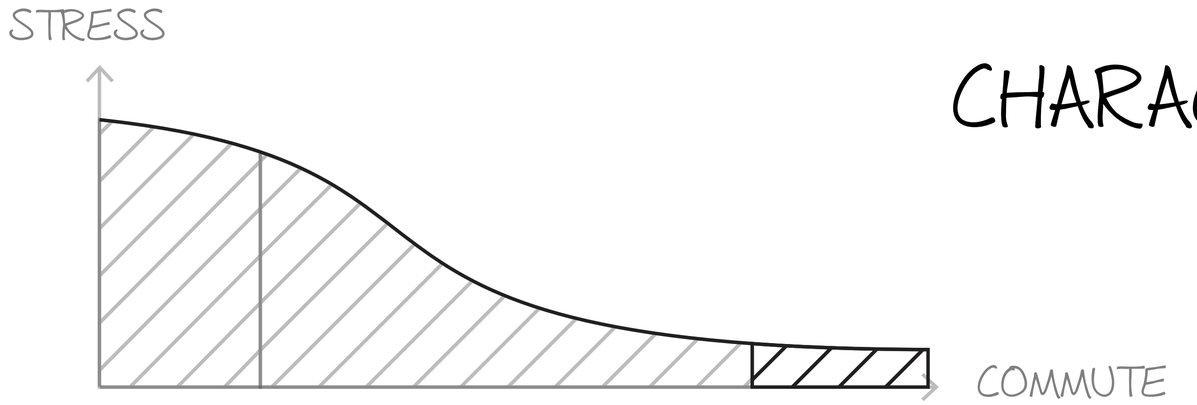
Concept: a route that calms the mind



CHARACTERISTICS LOOP

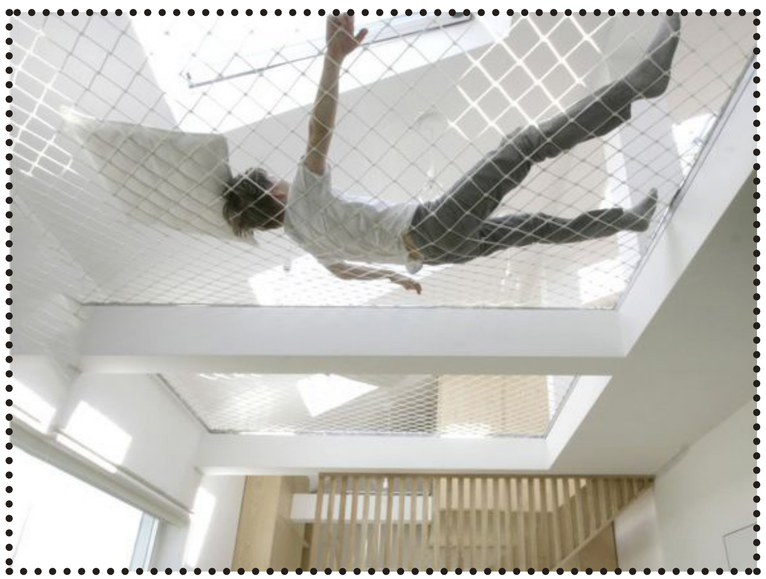
- Abstract
- Concrete
- Curved
- Ongoing
- Open and accesable
- Heavy
- Permament



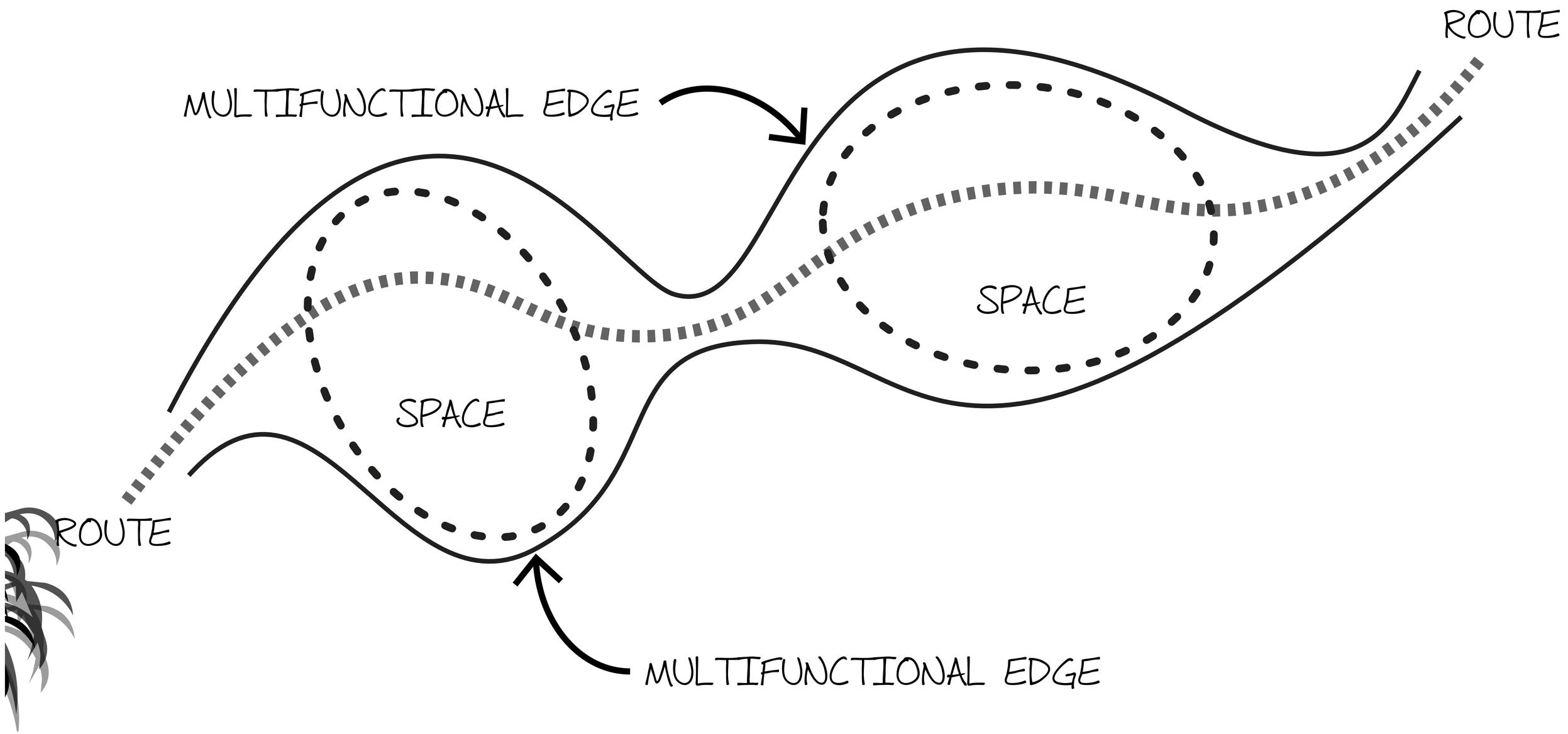


CHARACTERISTICS HOME

- Warm
- Wood
- Orthogonal
- Stopping
- Enclosed & efficient
- Light
- Adjustable



Functions and spaces are added to
the route to make it more functional



Nature works as fall prevention

A: Bench

height 600<900mm
sitheight 400<500mm
sitdepth <500mm
length 3000<7000mm

B: Route

width >1200mm

C: Fall prevention

height 200<600mm
width >800mm

Nature for enclosure of the space

A: Shelter

height 1600<2400mm
sitdepth 400<1200mm
sitheight 300<500mm
length 3000<5000mm

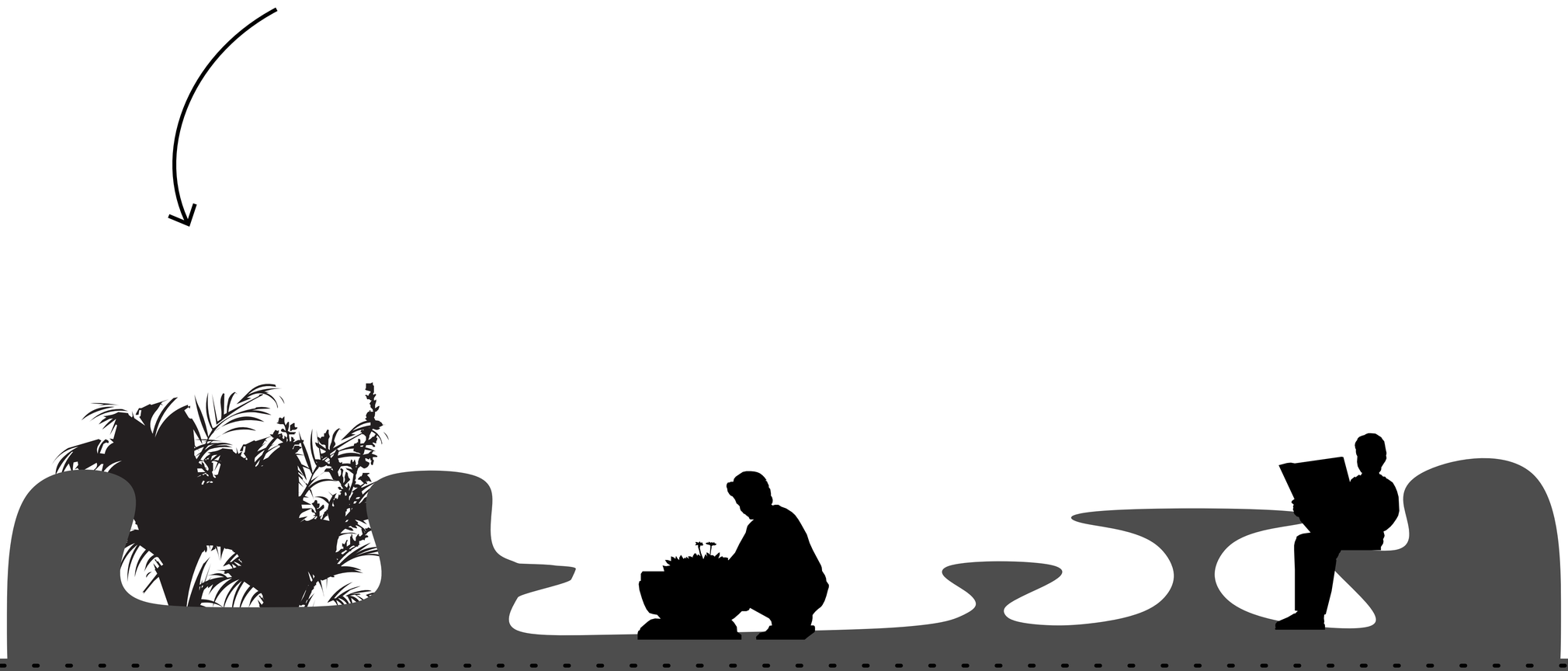
B: Space

width 3200>mm

C: Bench

height 600<900mm
sitheight 400<500mm
sitdepth <500mm
length 3000<7000mm

Nature for healty mind



A: Bench

height 600<900mm
sitheight 400<500mm
sitdepth <500mm
length 3000<7000mm

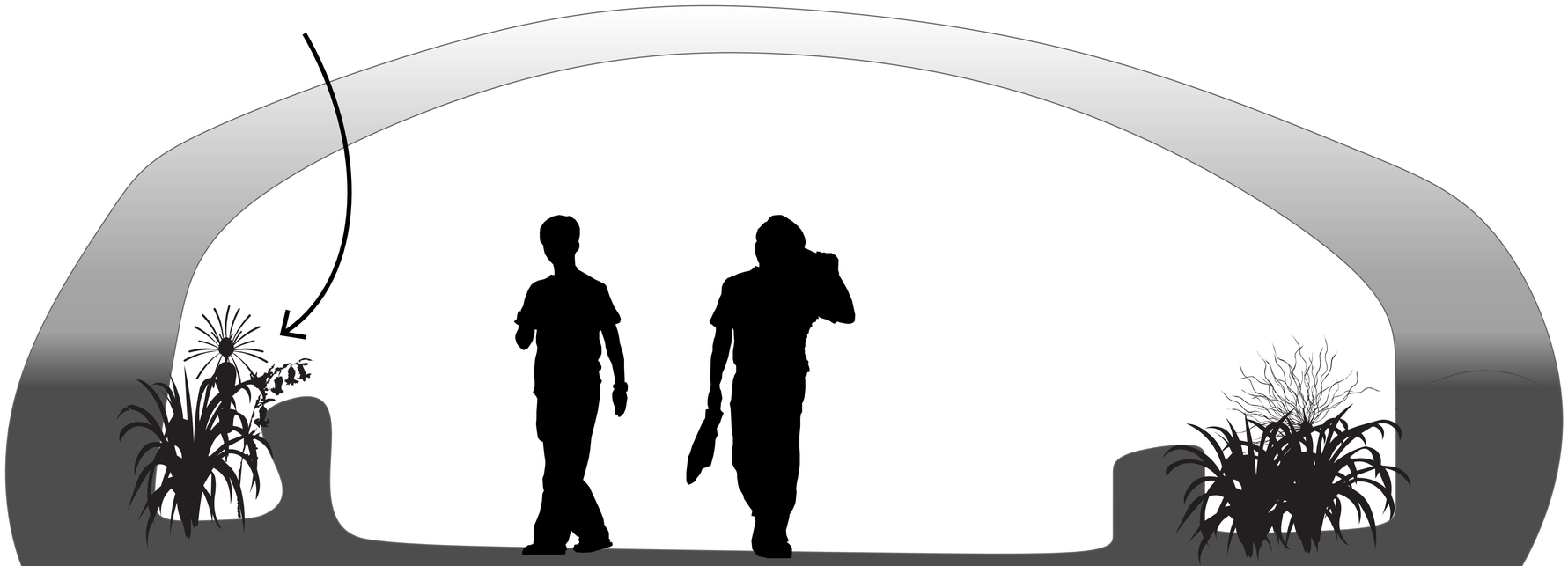
B: Route

route width >1200mm

C: Table

height 700mm
width 800<1200mm
Benchheight 400<500mm
length 2000<3500mm

Nature guides people & helps to orientate

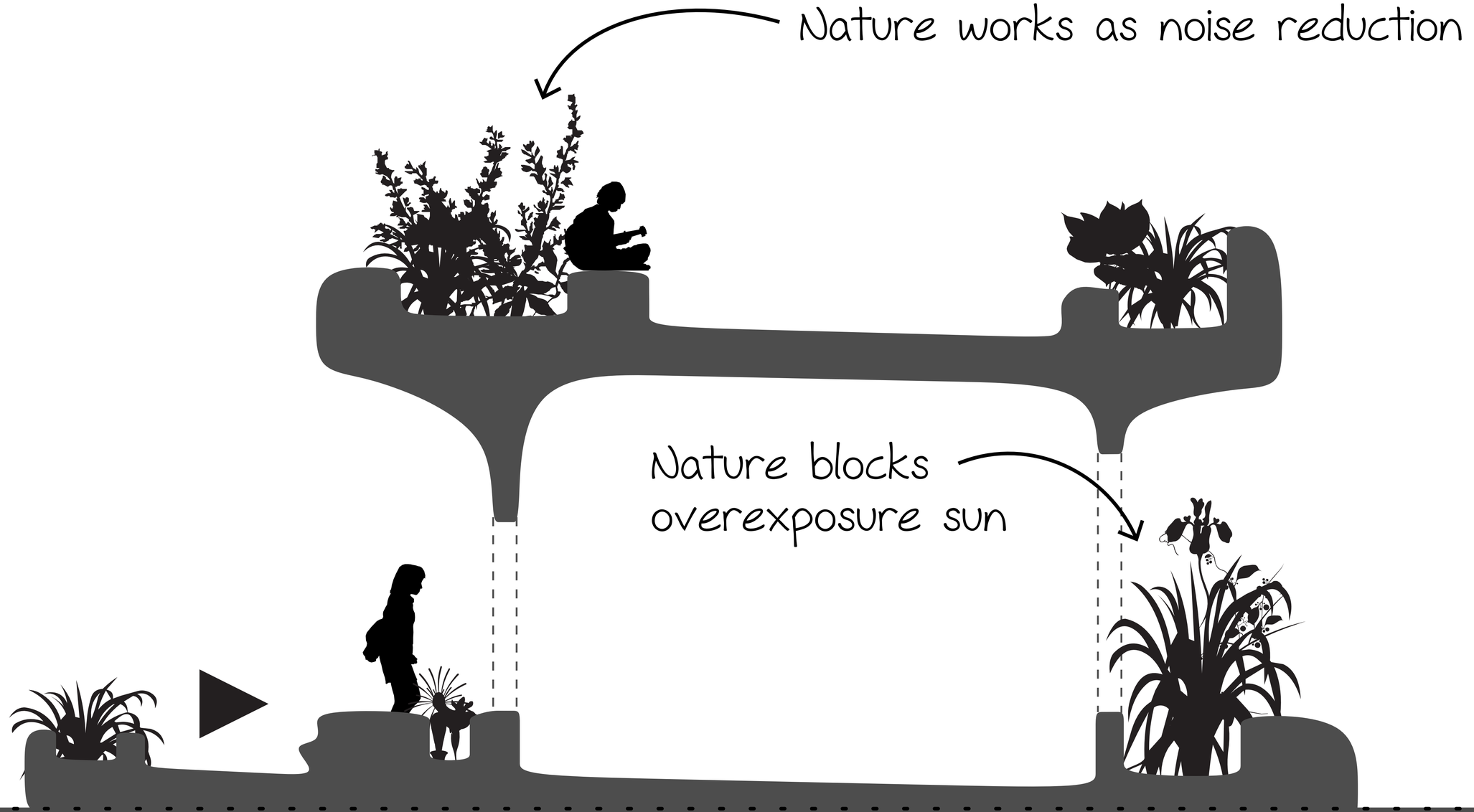


A: Gate support

B: Entrance

withd 2400<4200mm
height 2600<3200mm

C: Gate support



A: Fall prevention

height 200<600mm
width >800mm

B: Route

width 1200>

C: Dwelling

size 36>48m2
width 7000>9000mm
heigth 4000<6000mm

Nature for enclosure of the space

A: Gallery/(Food)Bar

height 2600<3200mm
depth 800<3200mm
length 3000<8000mm

B: Space

width 3200>mm

C: Bench

height 600<900mm
sitheight 400<500mm
sitdepth <500mm
length 3000<7000mm

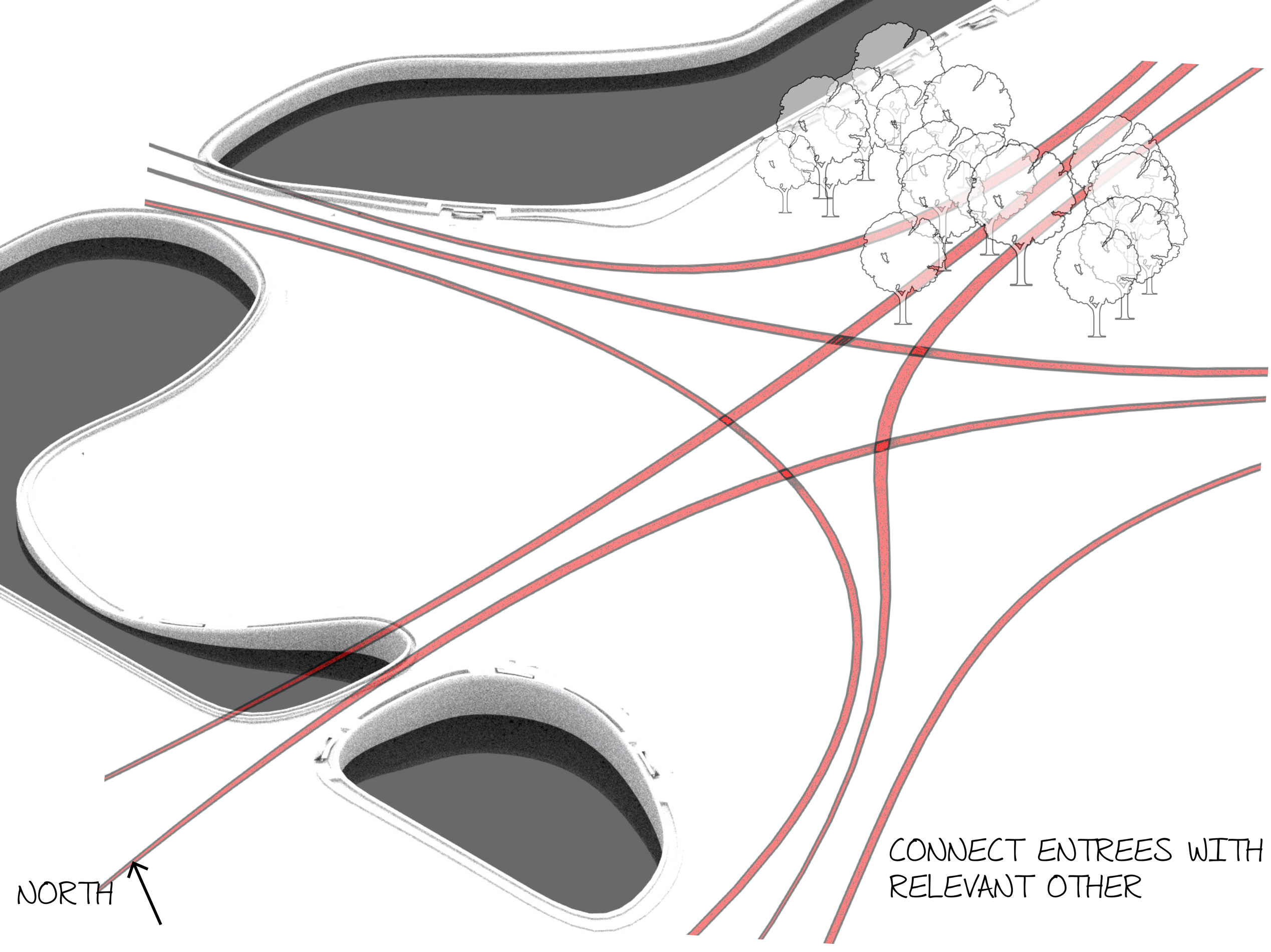
CAMPUS

PARKING

BUS & TRAM

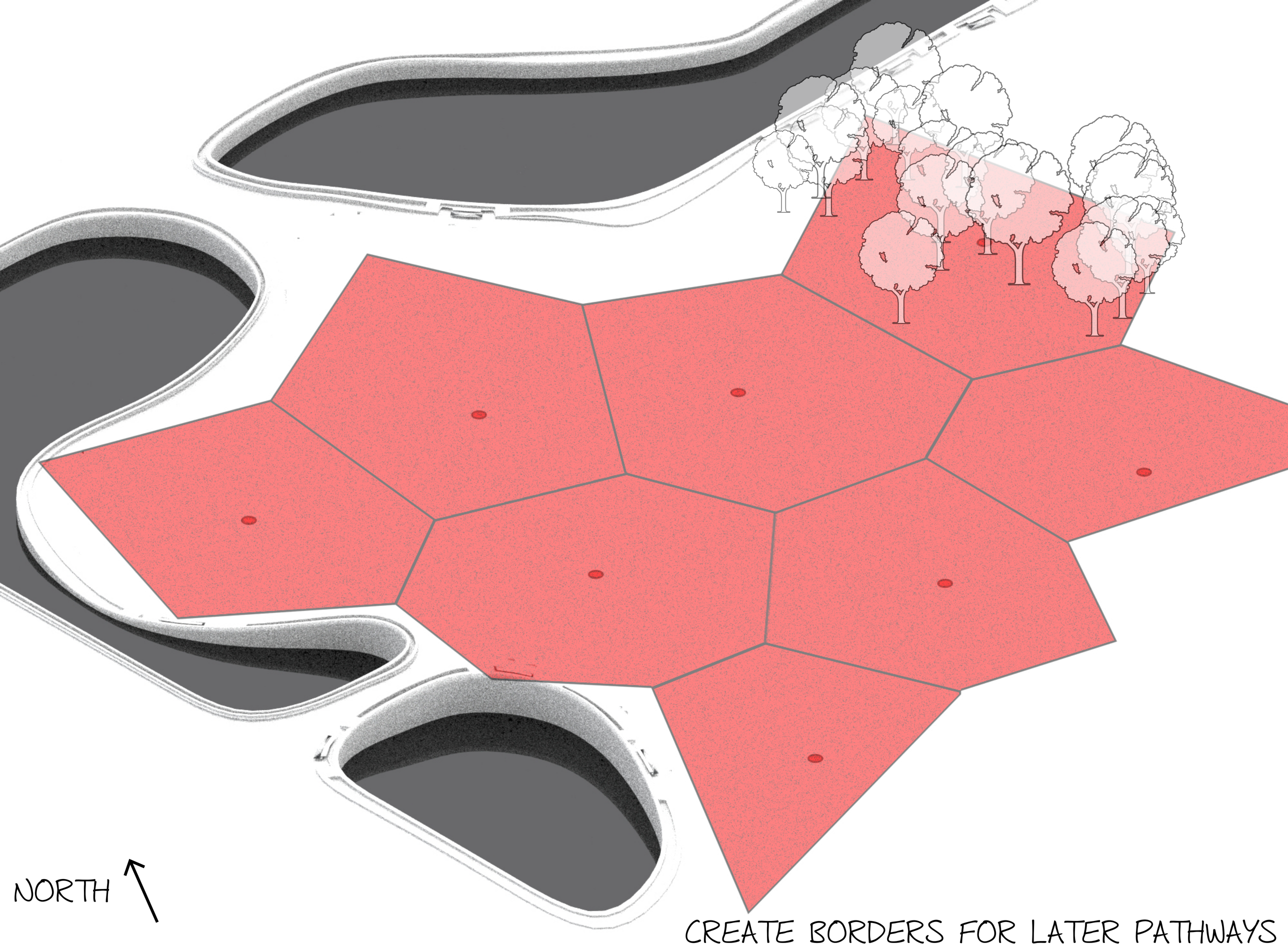
NORTH

SPORTS CENTRE


NORTH
CONNECT ENTREES WITH
RELEVANT OTHER

NORTH

POSITION POINTS NEAR ROUTE
WITH SIMILAR DISANCES



CREATE BORDERS FOR LATER PATHWAYS

PRESERVED TREES

DWELLING

DWELLING

PARKING

STORAGE/
BIKE PARKING

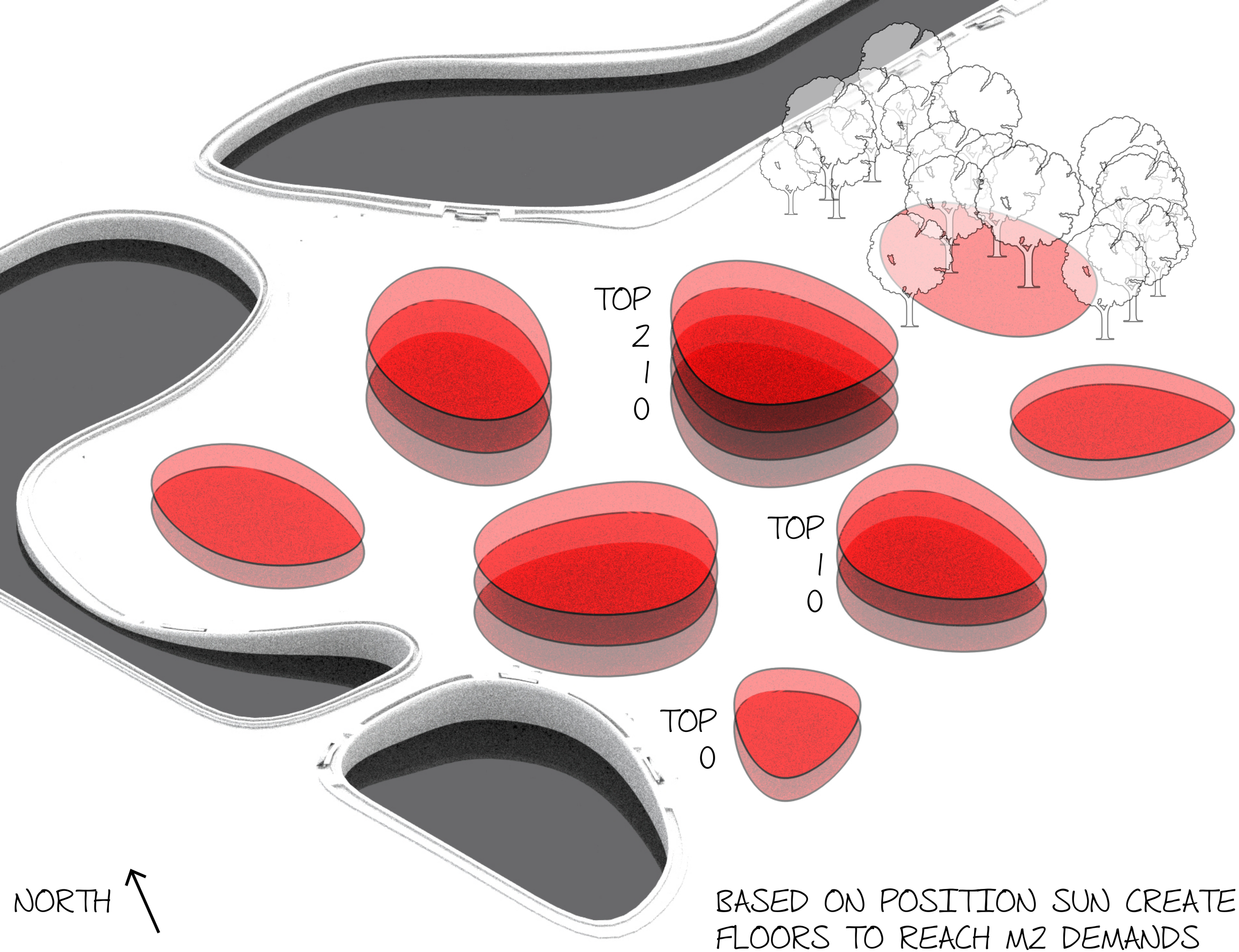
DWELLING

DWELLING

STORAGE/
SCOOTER PARKING

NORTH

GIVE FUNCTIONS



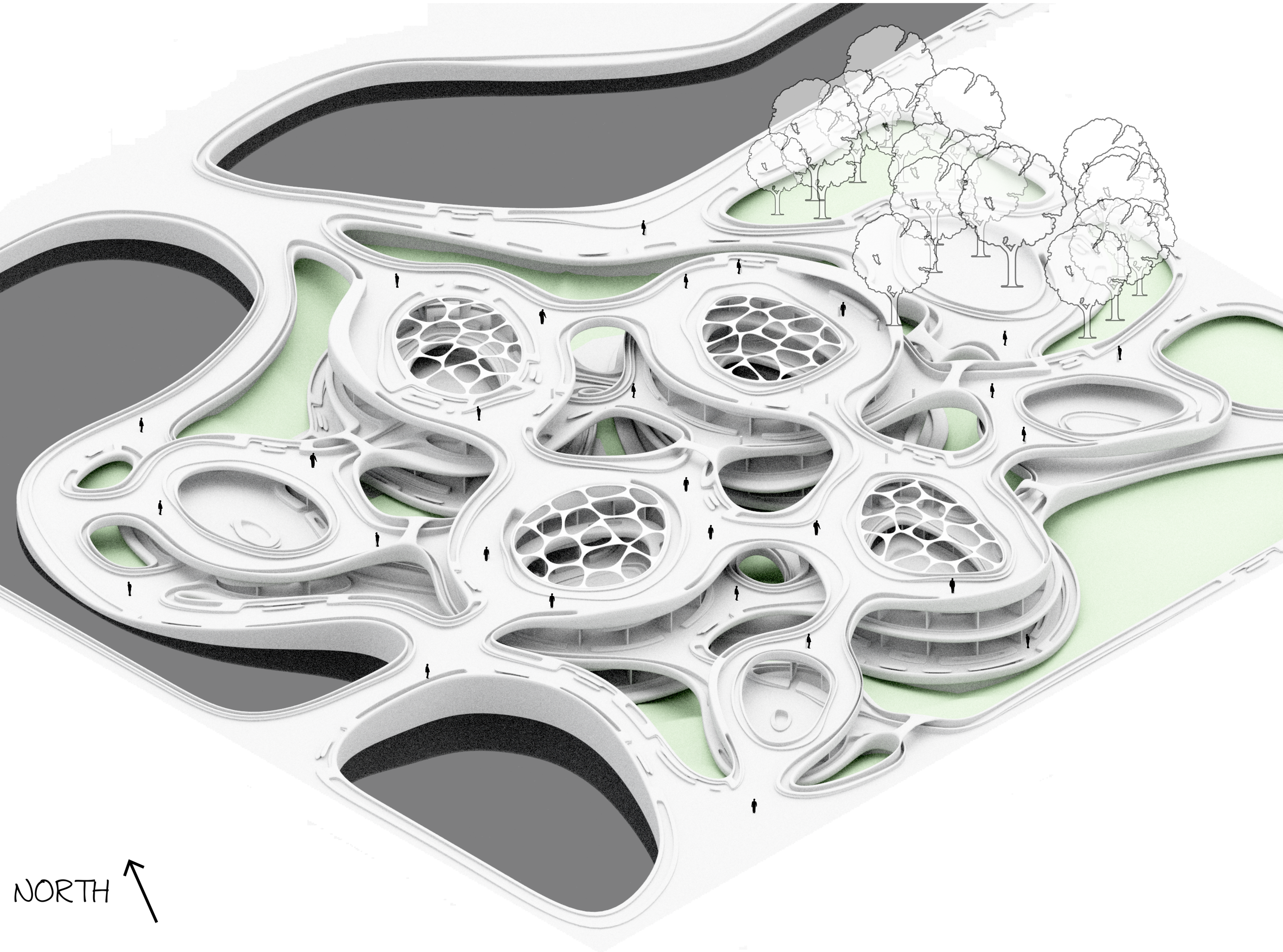
BASED ON POSITION SUN CREATE FLOORS TO REACH M2 DEMANDS

NORTH

TILT FLOORS TO ANOTHER
AND CREATE LOOPS

NORTH

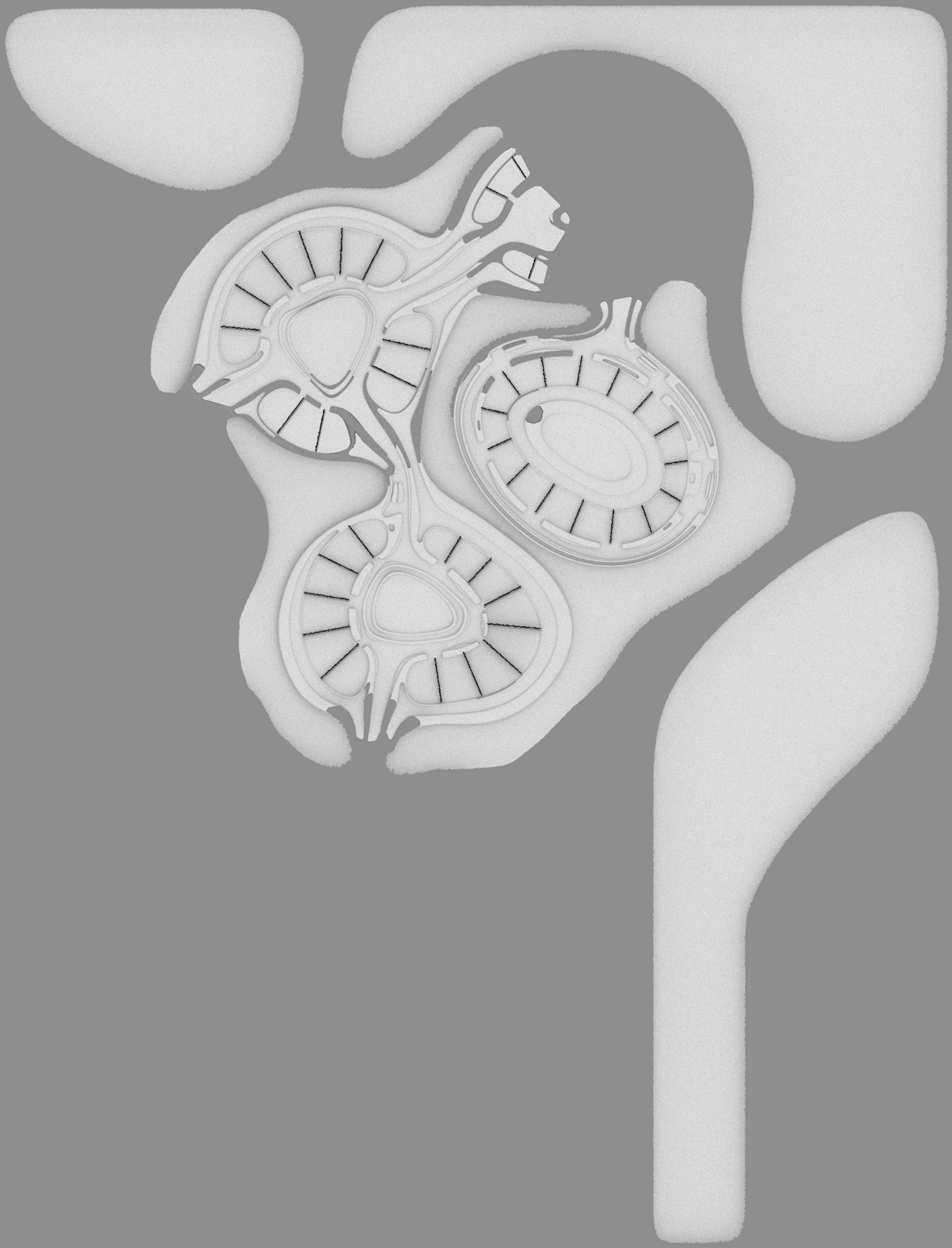
CONNECT LOOPS FOR A
CONTINUES ROUTE

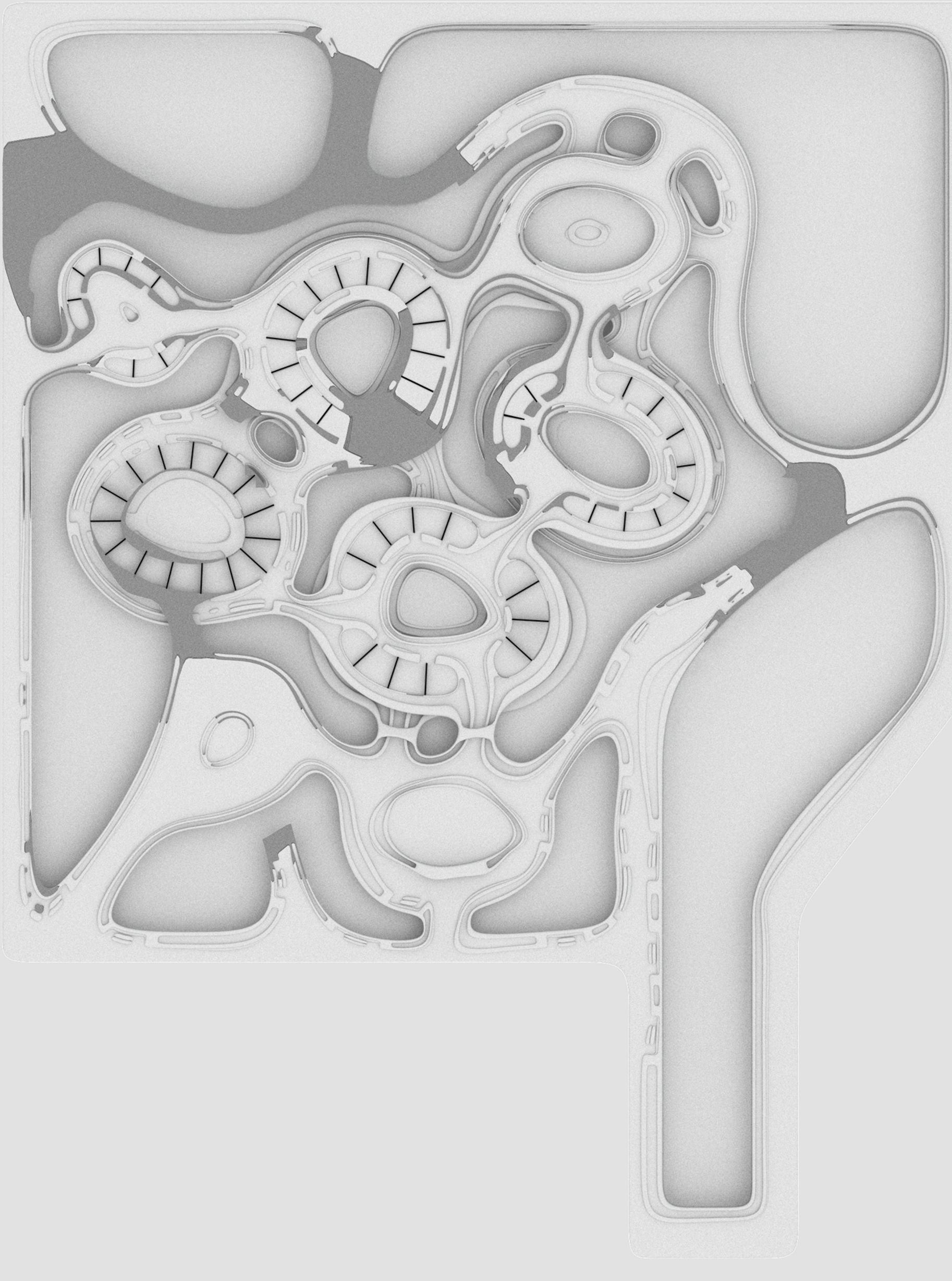

NORTH

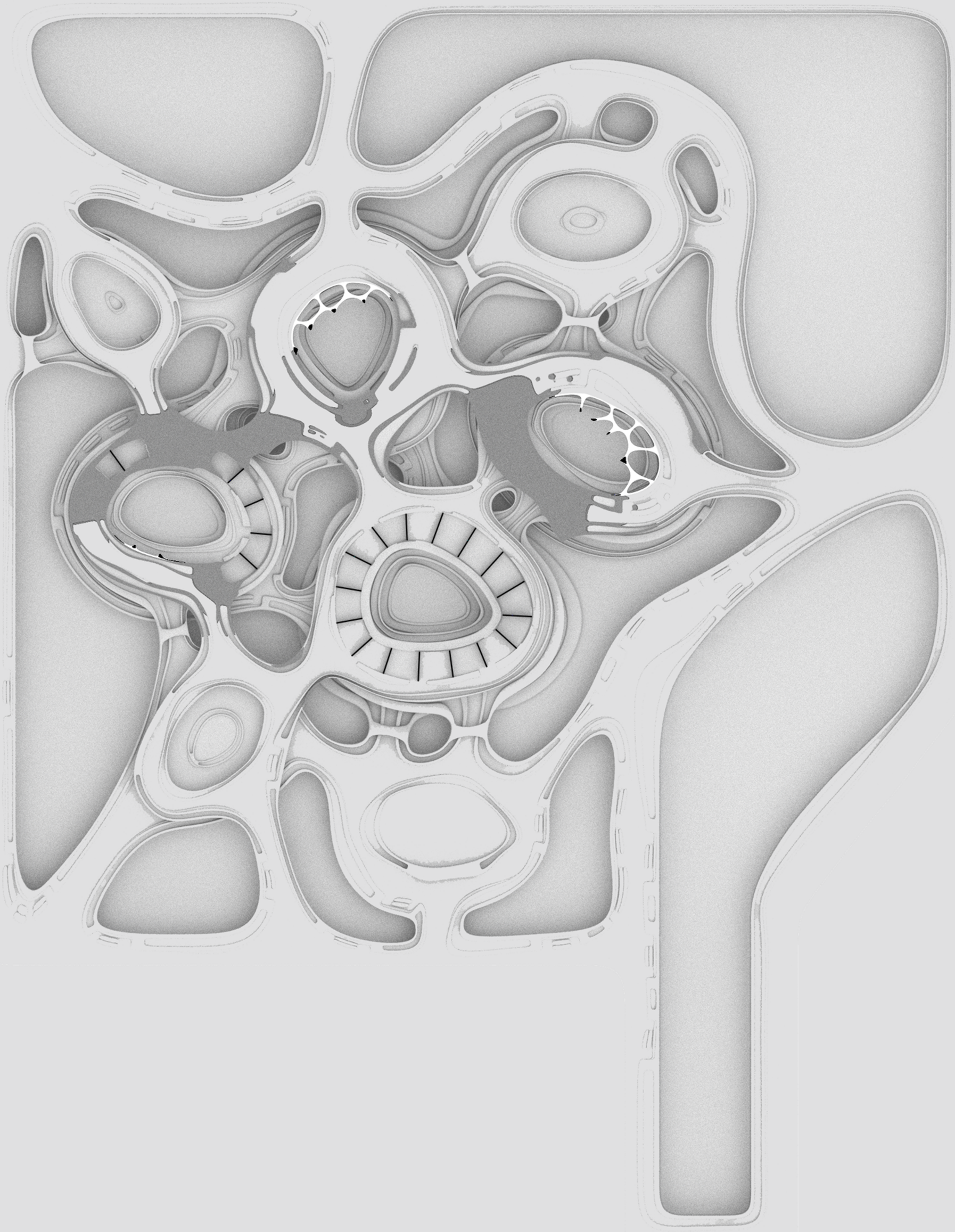
NORTH ↑

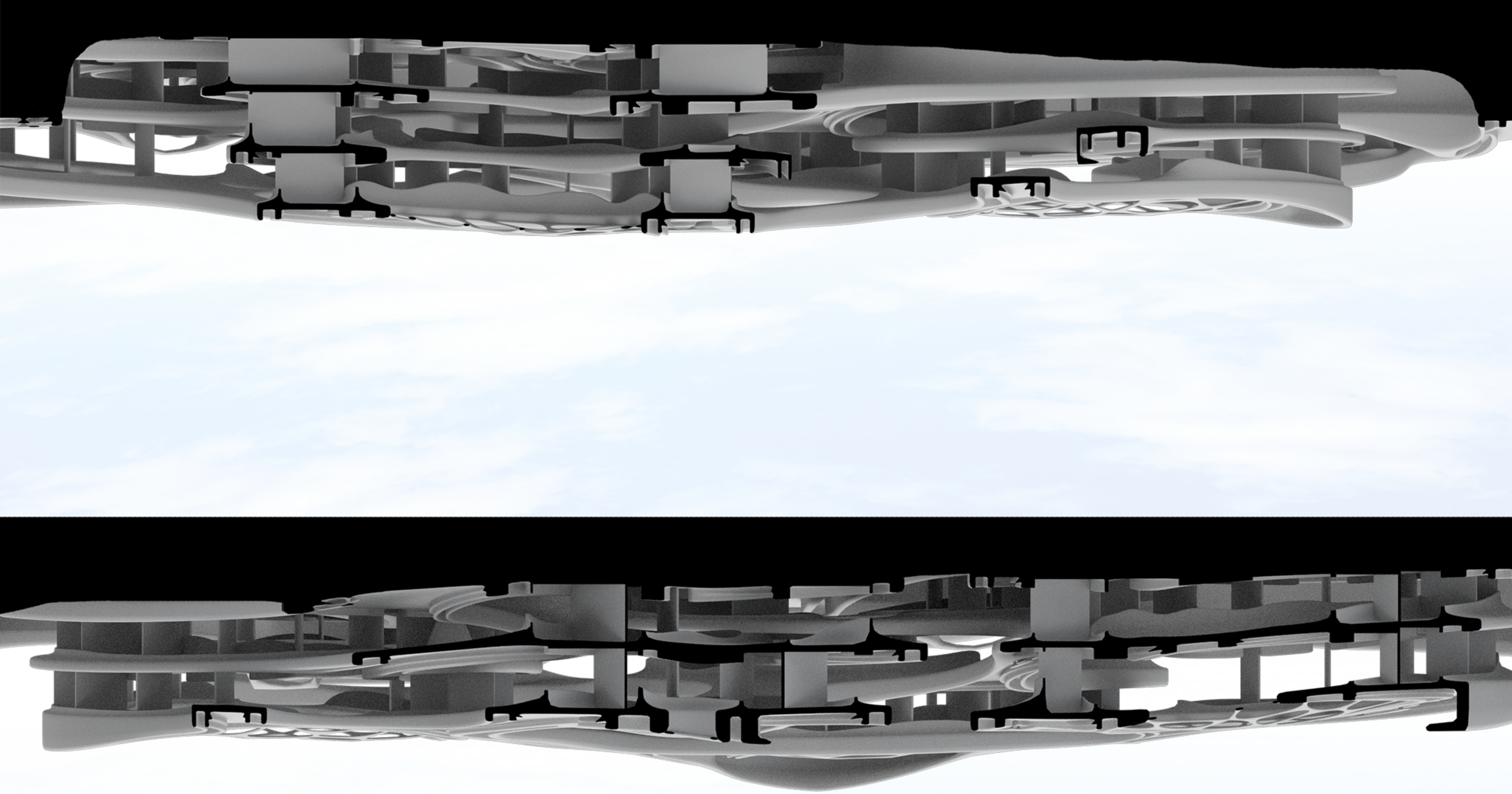
THE COLOUR OF PLANTS HELPS THE USER TO ORIENTATE

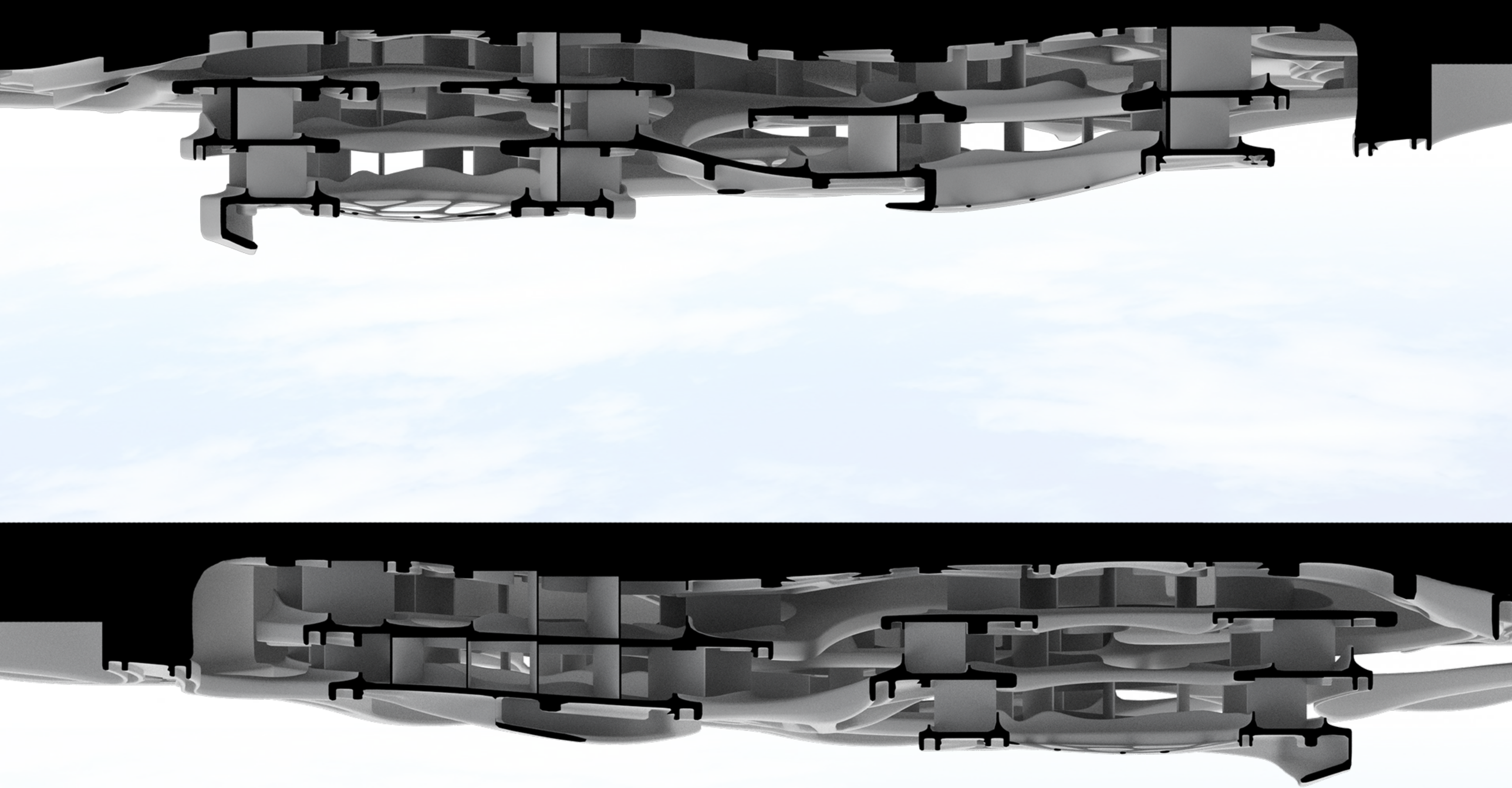
	Size A 120CM>	Size B 60CM<120CM	Size C <60CM
Yellow	 Ageratum houstonianum Tagetes erecta Catharanthus roseus	 Sutera cordata Platycodon grandiflorus Monarda didyma	 Rudbeckia hirta Dicentra spectabilis
Red	 Geranium sanguineum Festuca glauca	 Salvia farinacea Schizachyrium x	 Asclepias tuberosa Caladium x hortulanum
Purple	 Canna generalis Dianthus chinensis	 Cuphea ignea Solenostemon scutellaroides Achillea millefolium Zinnia elegans	 Heuchera hybrid Sanvitalia procumbens
Blue	 Sanvitalia speciosa Celosia agentea cristata	 Hemerocallis hybrids Senecio cineraria	 Rudbeckia hirta Dicentra spectabilis
White	 Iris cristata Miscanthus	 Platycodon grandiflorus Monarda didyma	 Festuca glauca Achillea millefolium

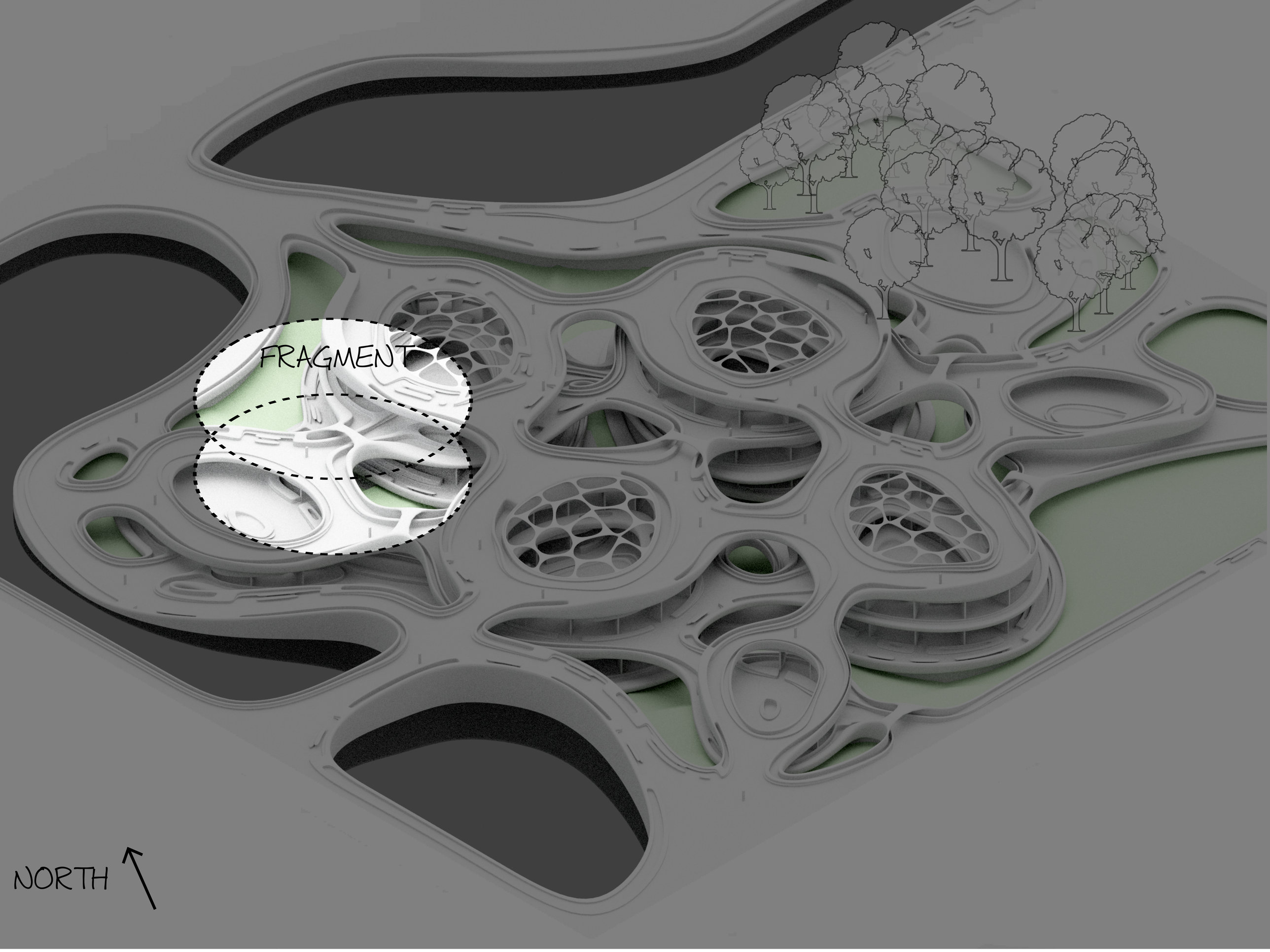


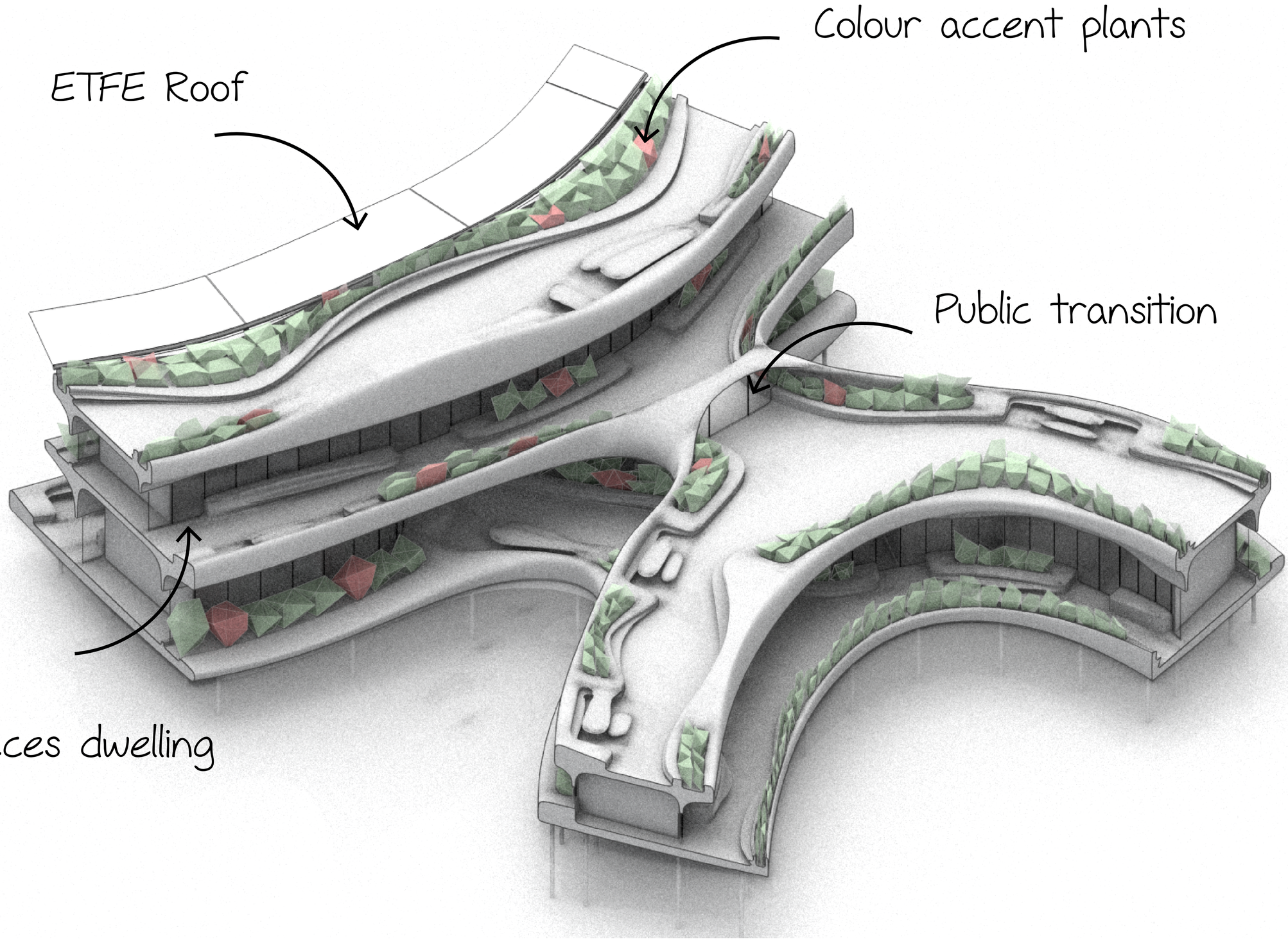


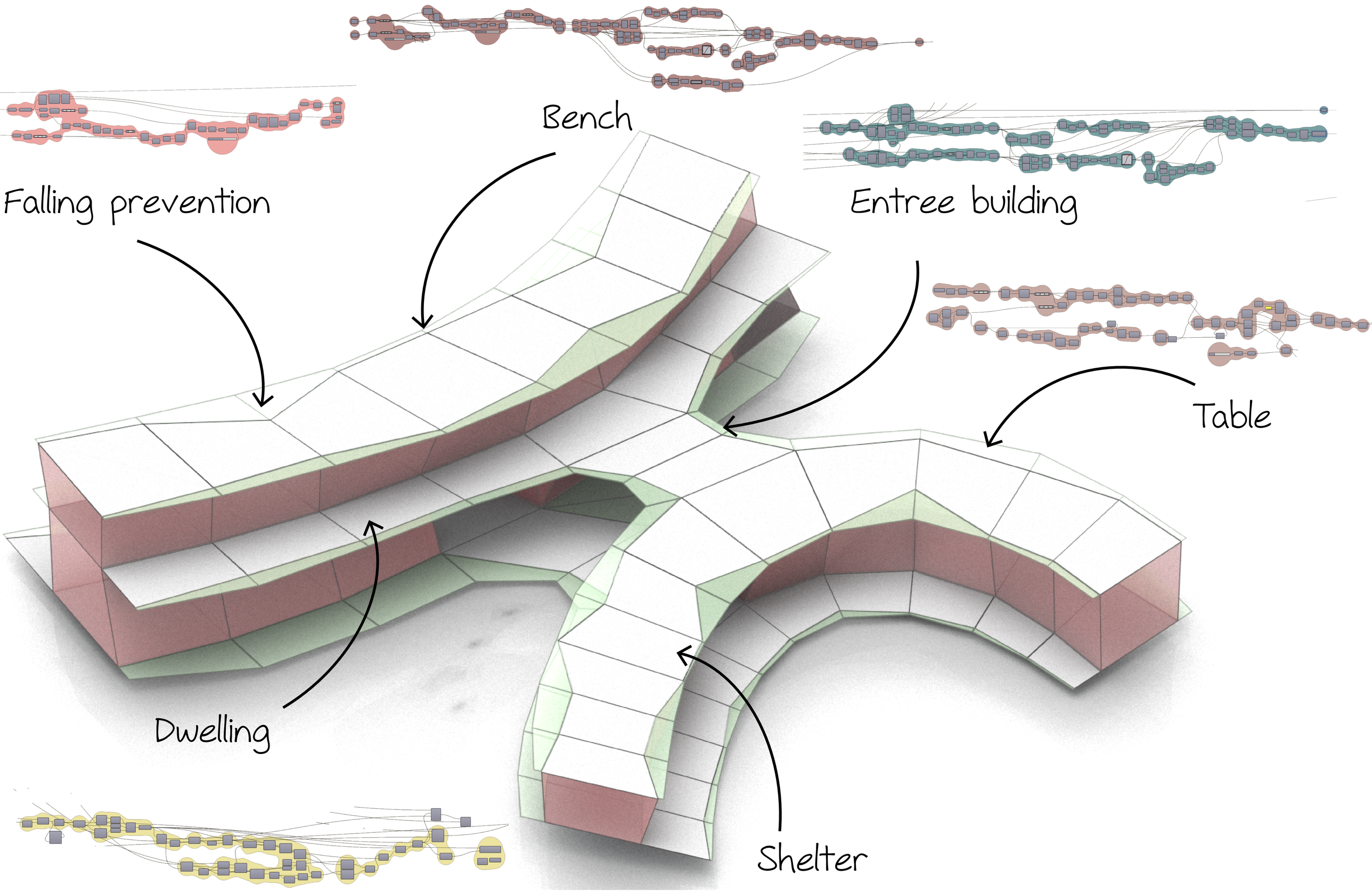


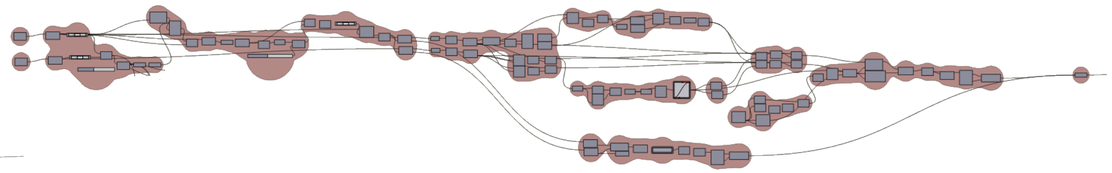




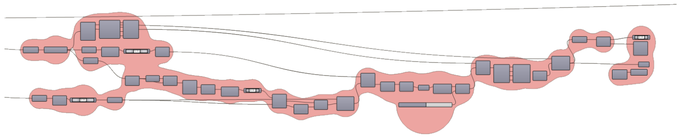

FRAGMENT
NORTH


ETFE Roof
Colour accent plants
Public transition
Acces dwelling

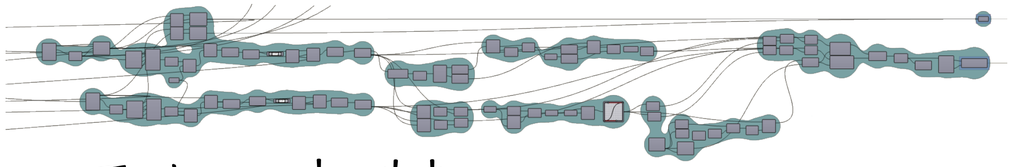

Bench
Falling prevention
Entree building
Table
Dwelling
Shelter



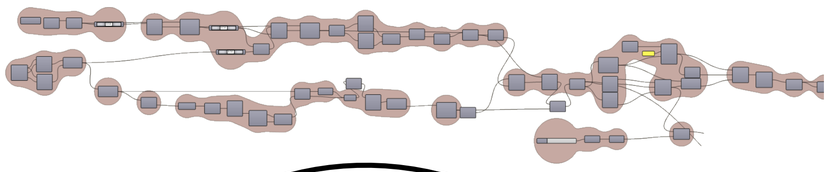
Bench



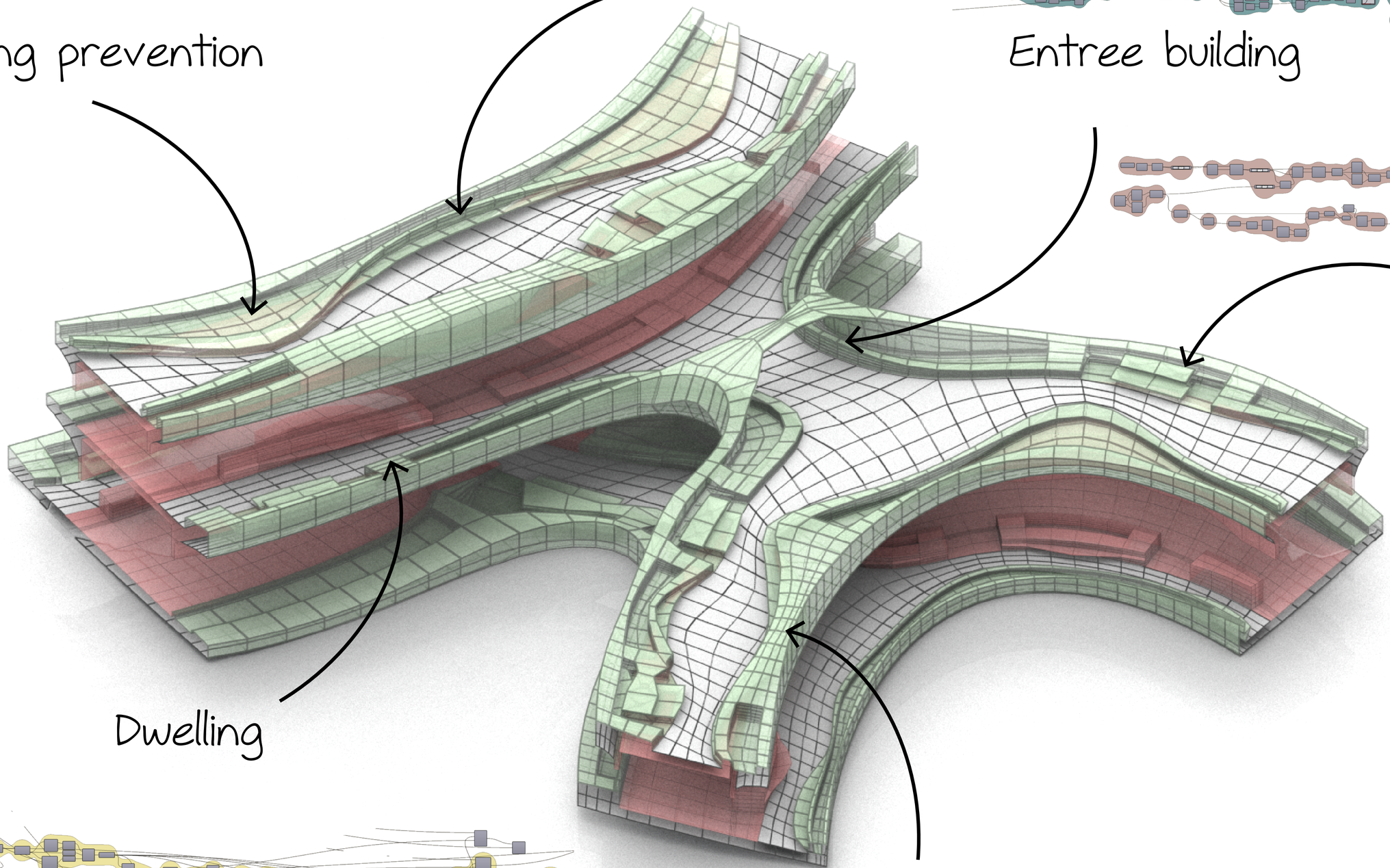
Falling prevention



Entree building

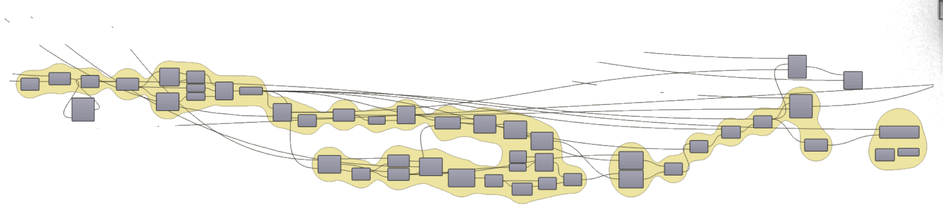


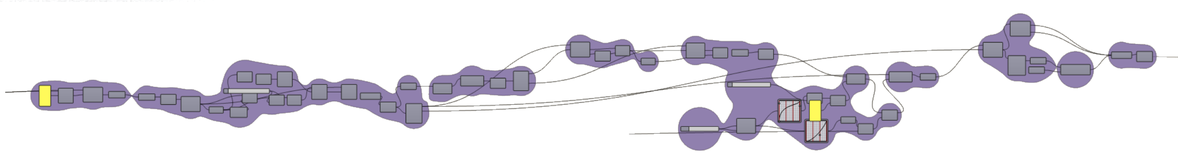
Table

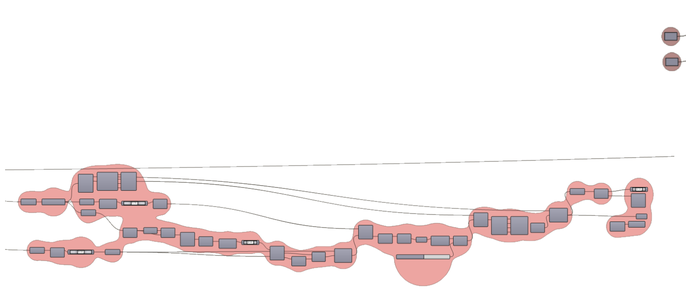


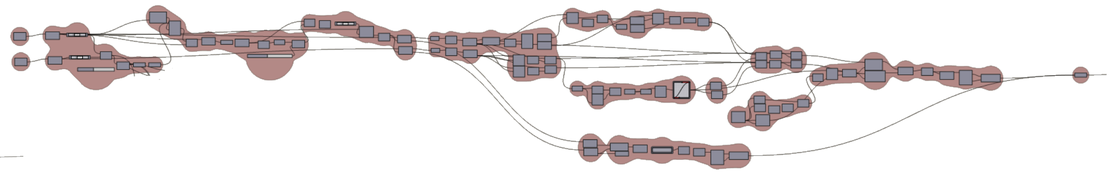
Dwelling

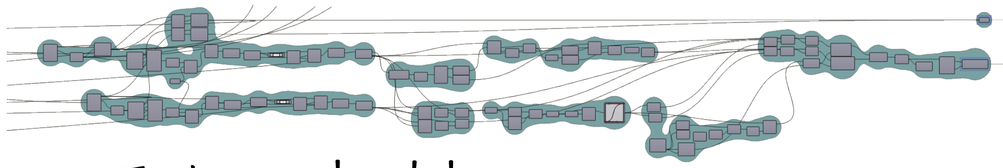
Shelter







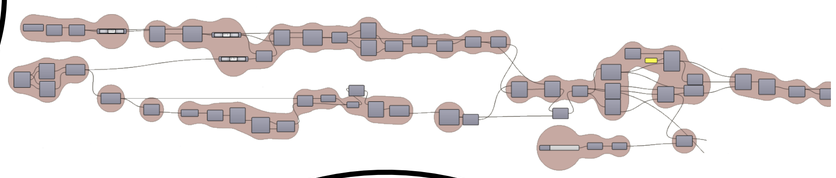




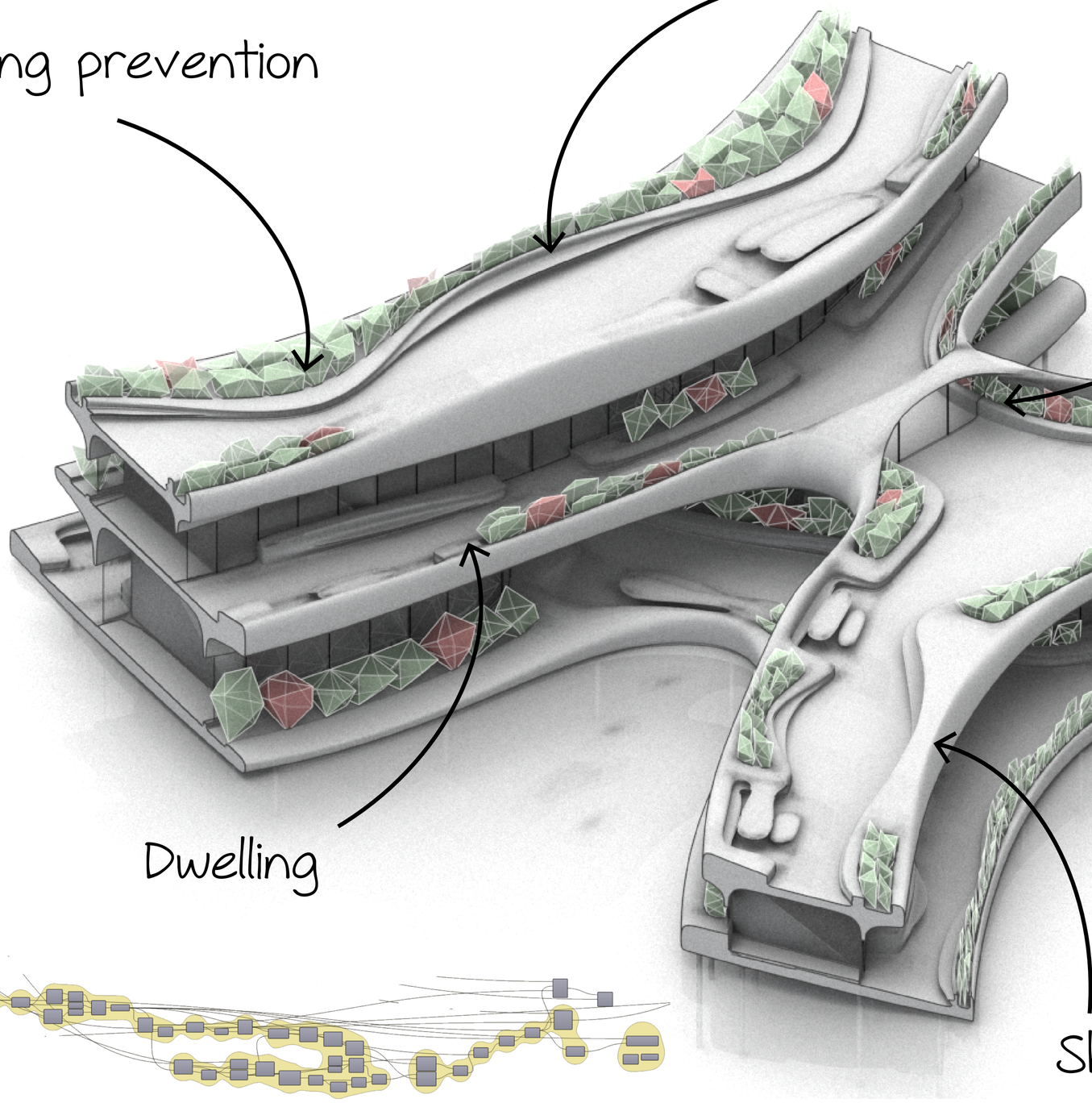
Falling prevention

Bench

Entree building

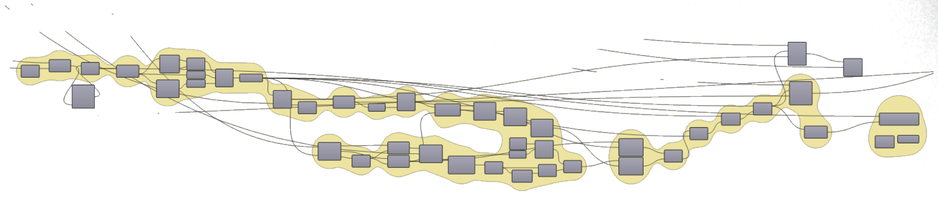


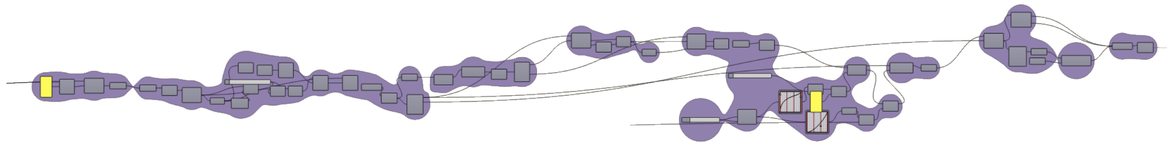
Table



Dwelling

Shelter

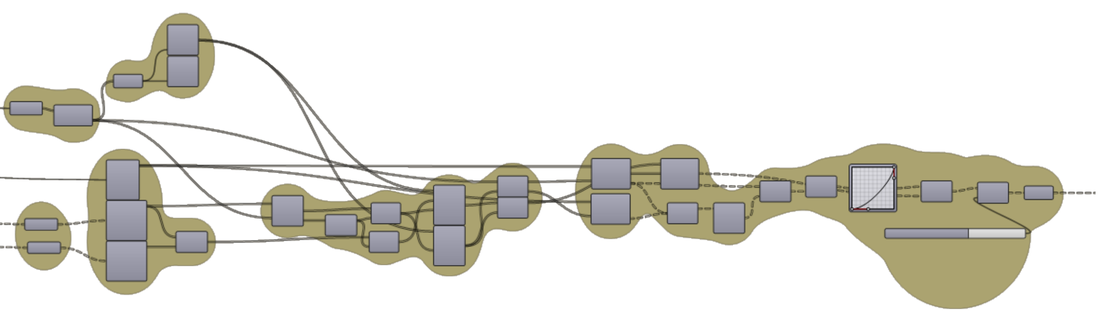




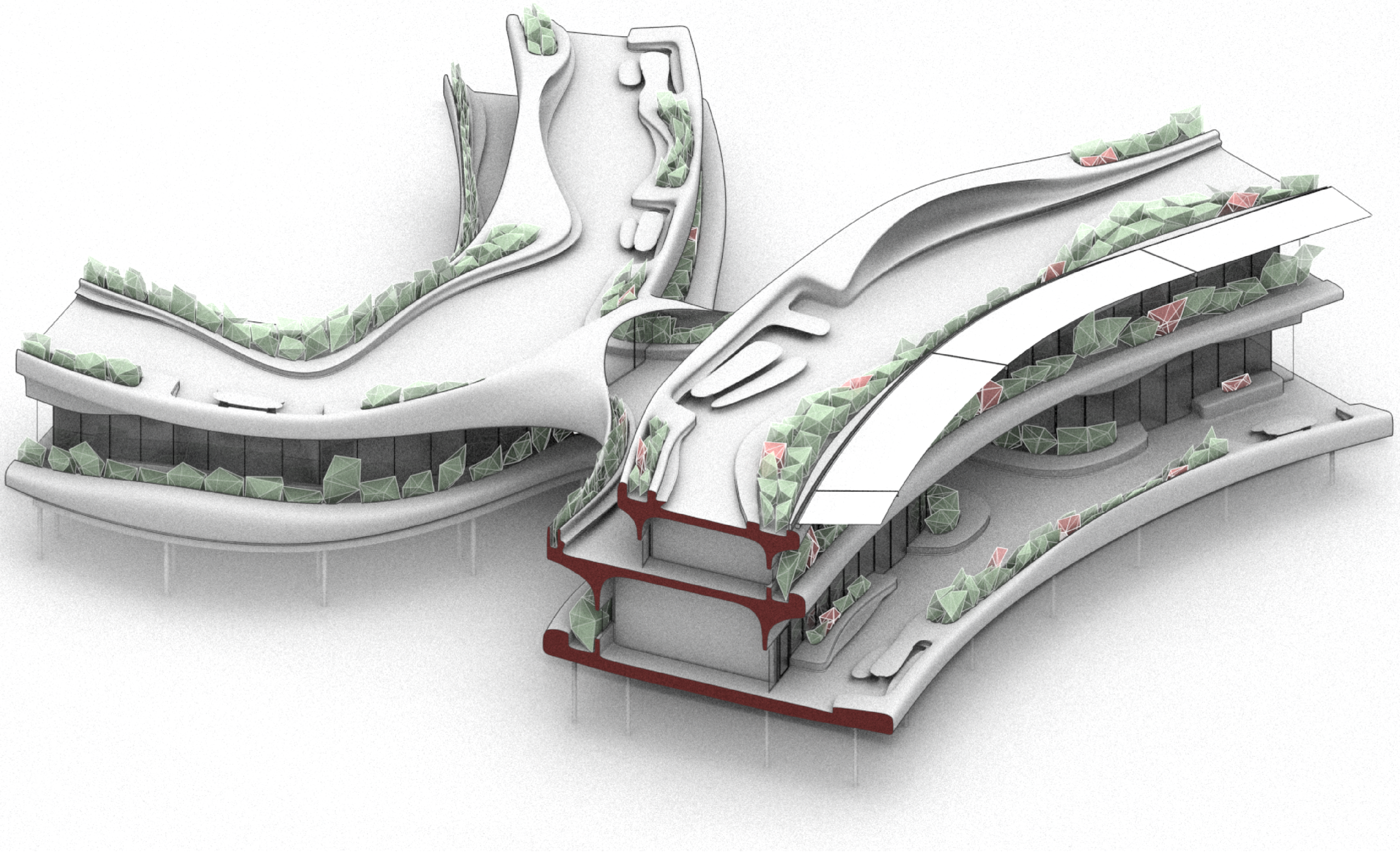
loads of ceiling

top edge dwelling

support walls

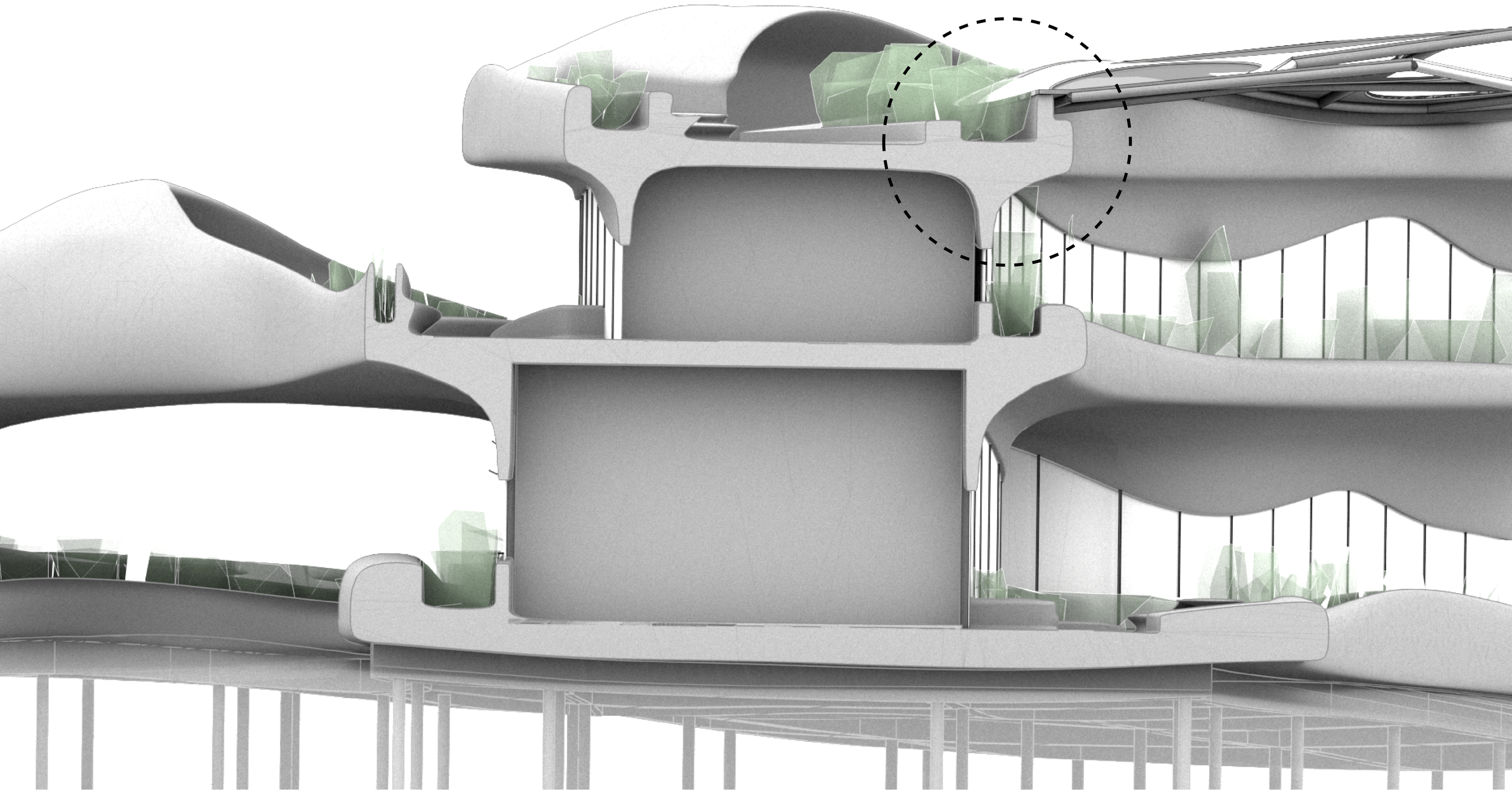


Ceiling is shapes according to the load of forces. The top edge of the dwelling will continue transfering it to the structural walls.



All dwelling will have an cold and warm side. Solar radiation heats the space underneith ETFE. By controlling the air outlet, the dwellings will be ventilated, cooled and warmed in summer and winter.

ETFE Roof with controlled air outlet



Vegetation
Growing medium
Filter membrame
Drainage
Waterproof/Root repellant
Vapor Control
Prefabricated concrete 200mm

Sheet Metal parapet cap drain to roof side
Protection course
Sheet Metal protection
Prefabricated concrete 100mm
Roof support beam 150mm diameter

Variable Height

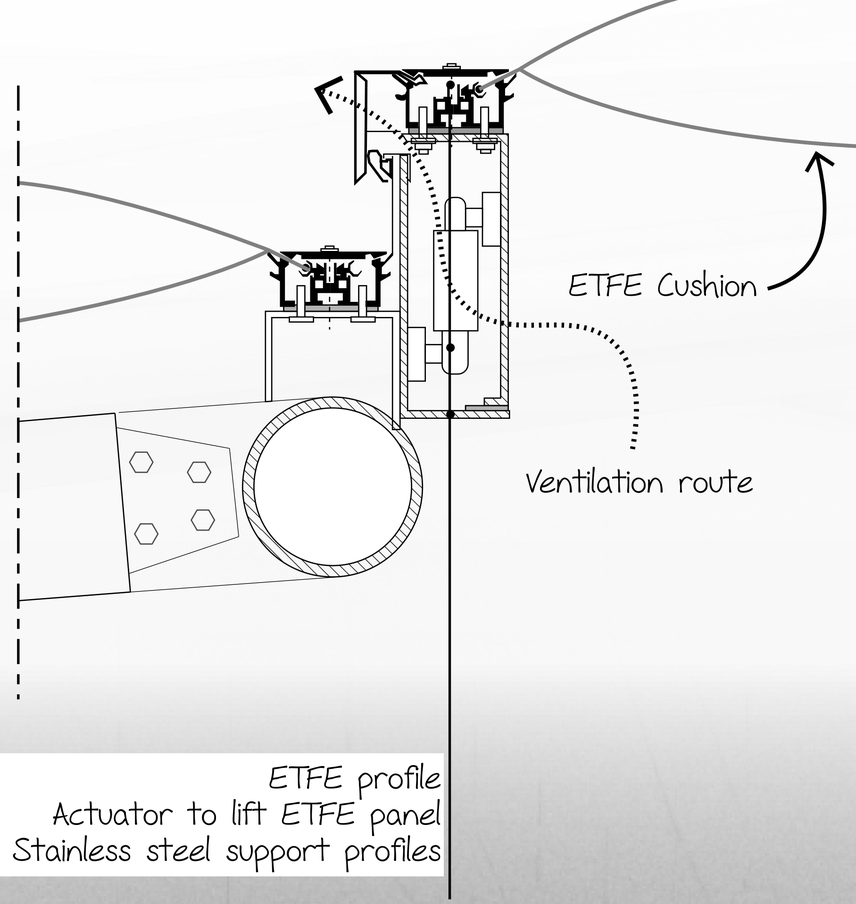
70mm
200mm
120mm

44x114mm

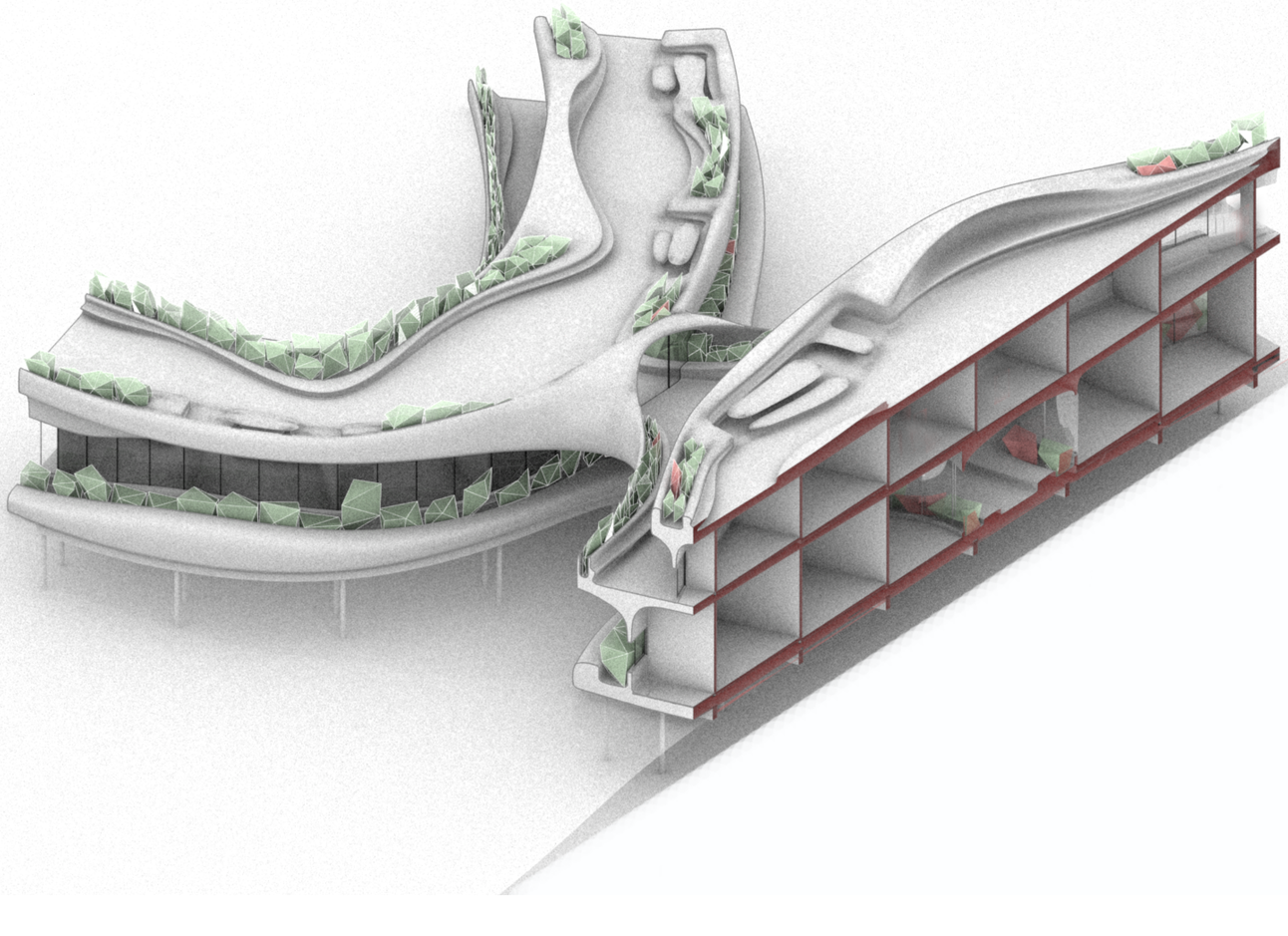
Prefabricated Concrete
EPS from prefab mould 120mm
Base coat
Plaster 6mm
Stucco white

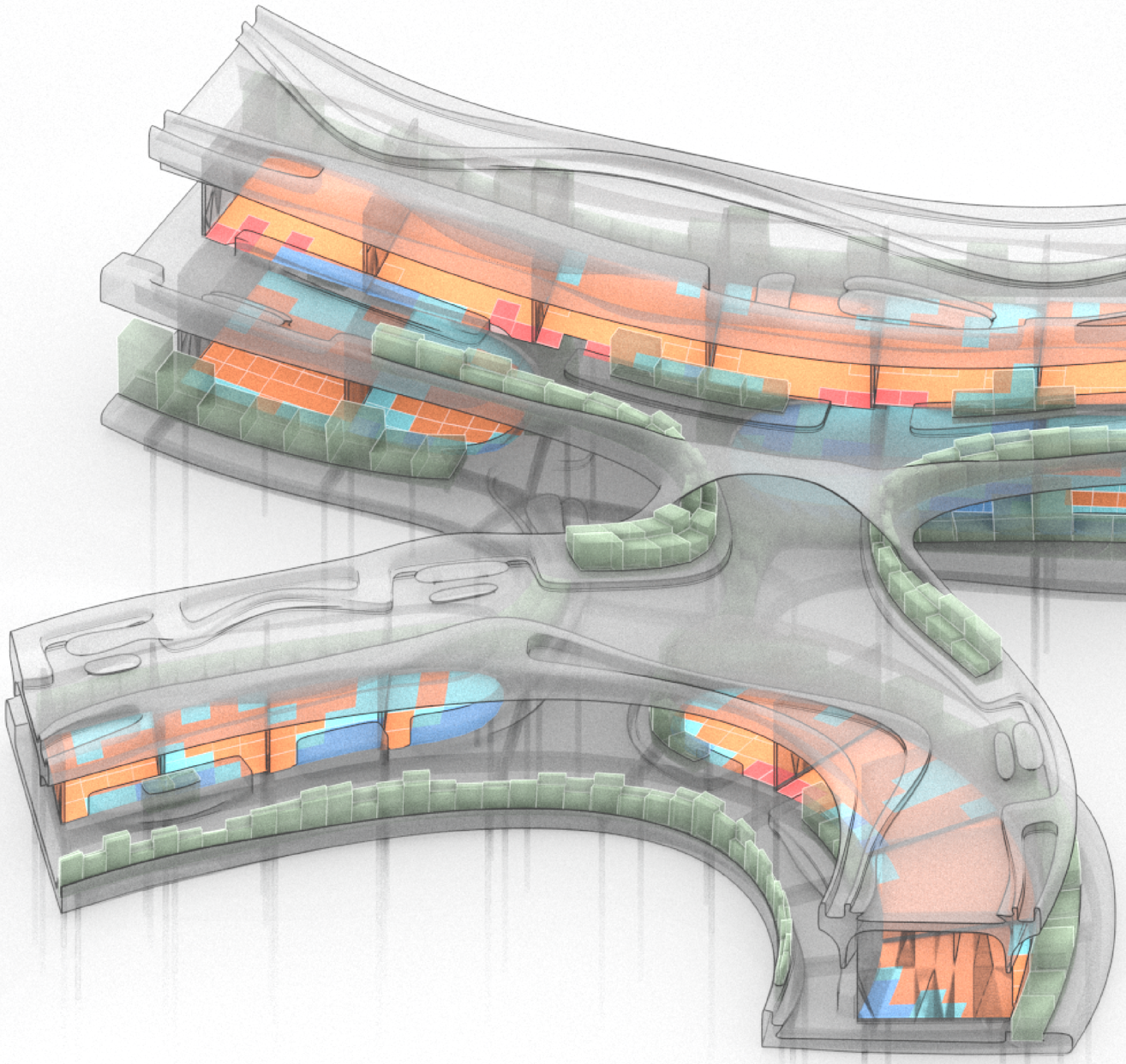
Plywood 12mm finnish
Insulation 80 mm
Prefabricated Concrete 100mm

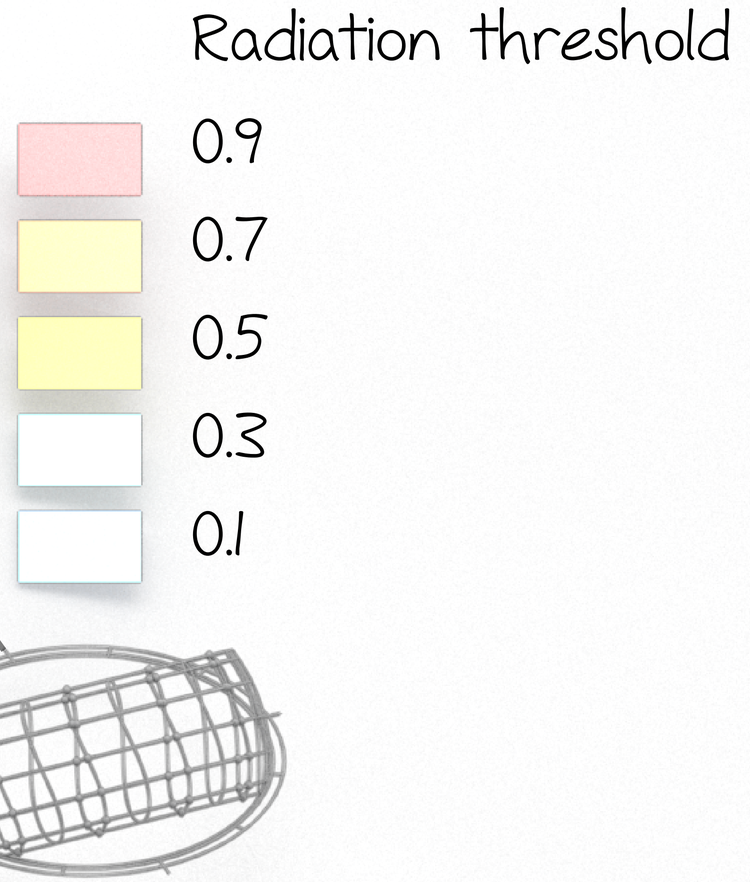
12mm 80mm 100mm

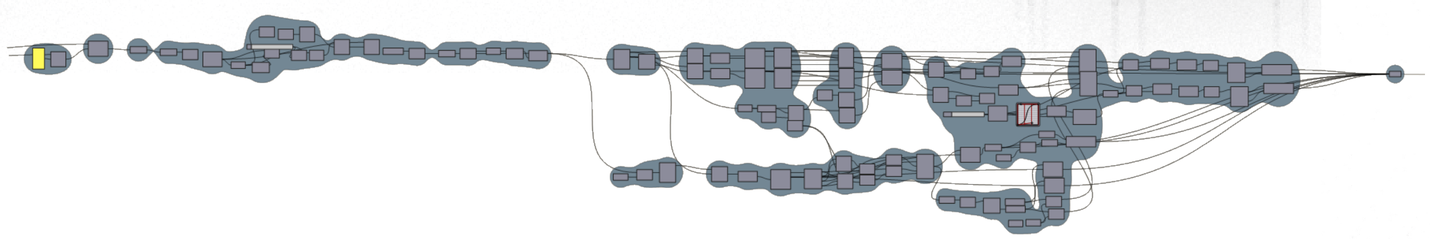


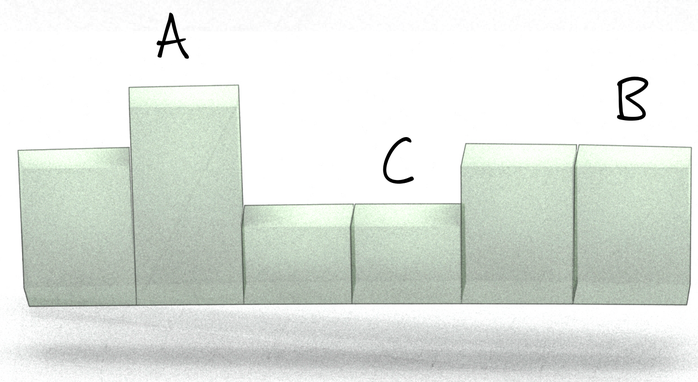
ETFE profile
Actuator to lift ETFE panel
Stainless steel support profiles



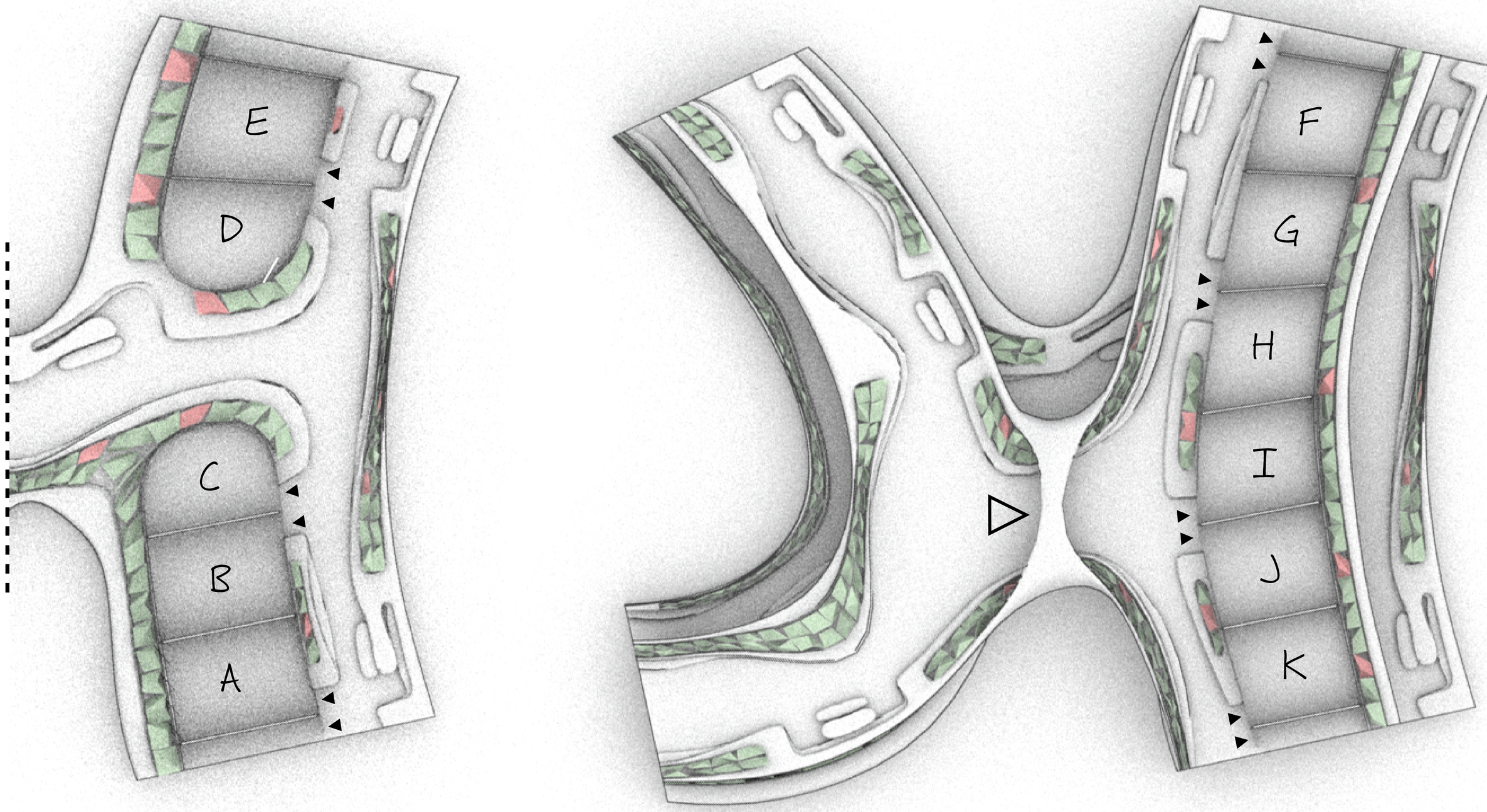






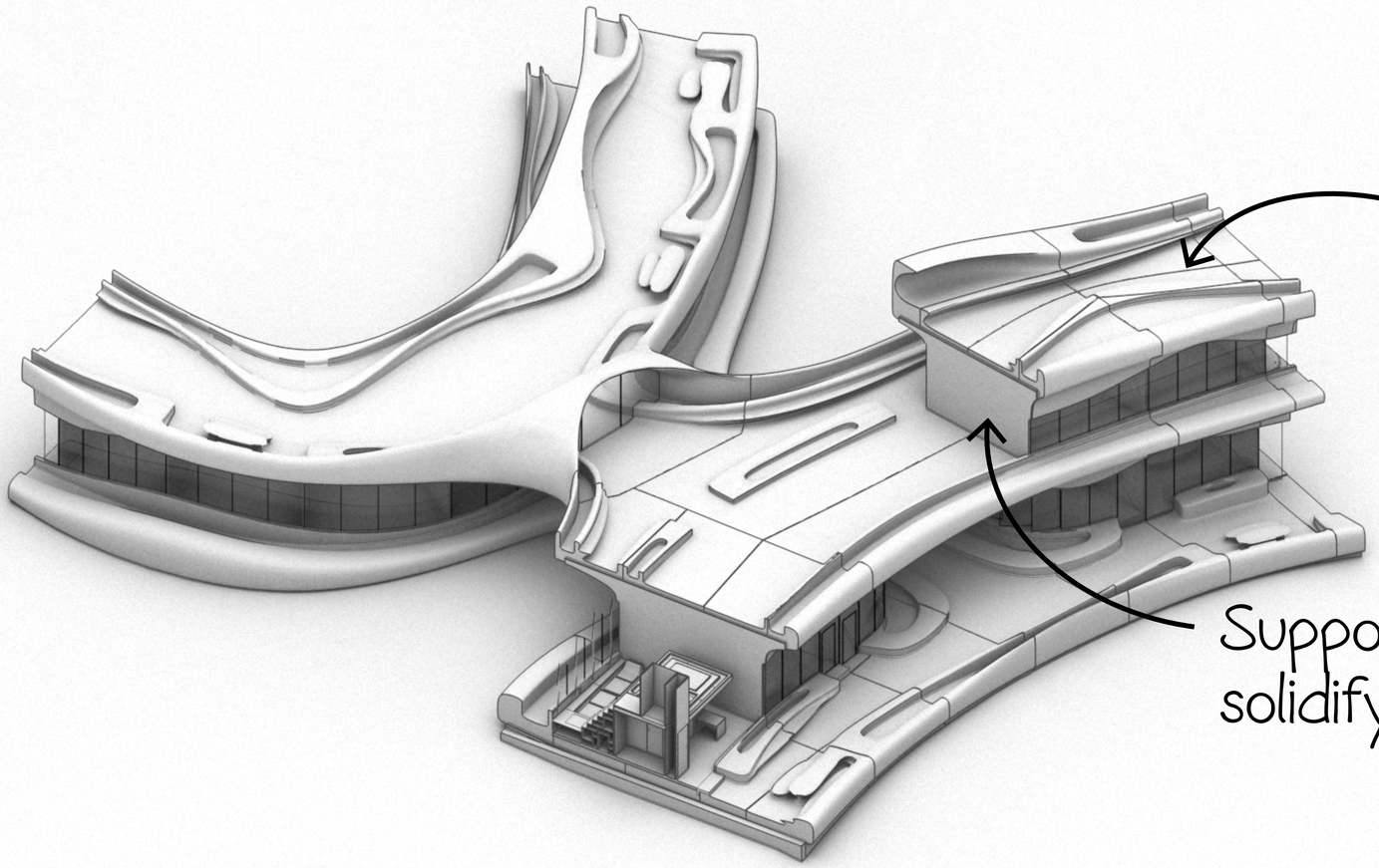


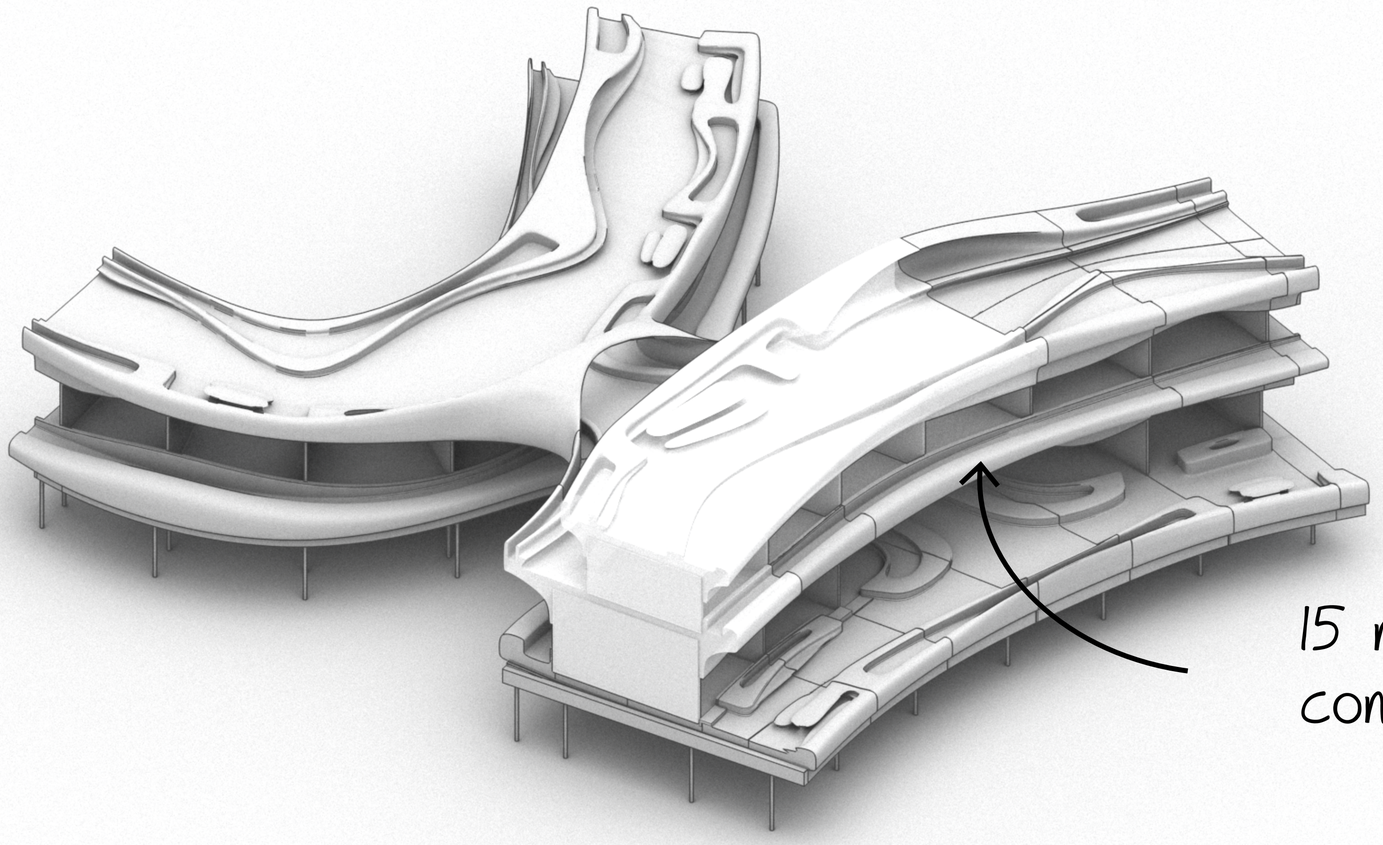
Computational script will run all posible variations of heights for minimuml and maximum allowed radiation of the interior of the dwellings



First Floor
A Master 44m2
B Master 42m2
C Master 38m2
D Master 40 m2
E Master 44 m2

Second Floor
F Bachelor 35m2
G Bachelor 36m2
H Bachelor 36m2
I Collective space 34m2
J Bachelor 36m2
K Bachelor 36m2

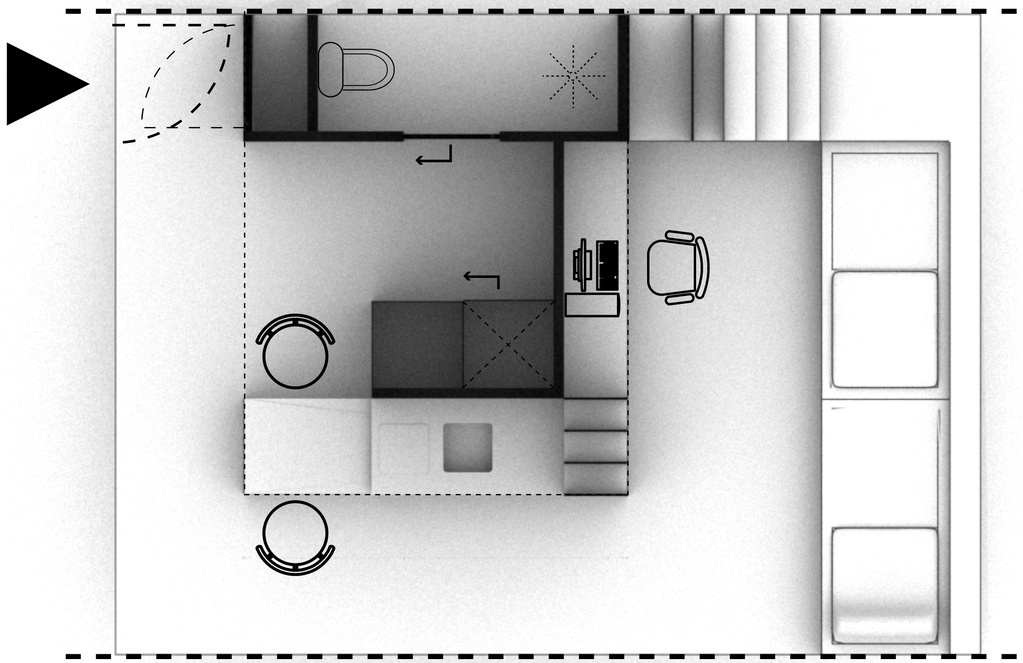

Prefab building components
Support wall, poured on site to solidify concrete structure


15 meter span, posible through complete concrete framework

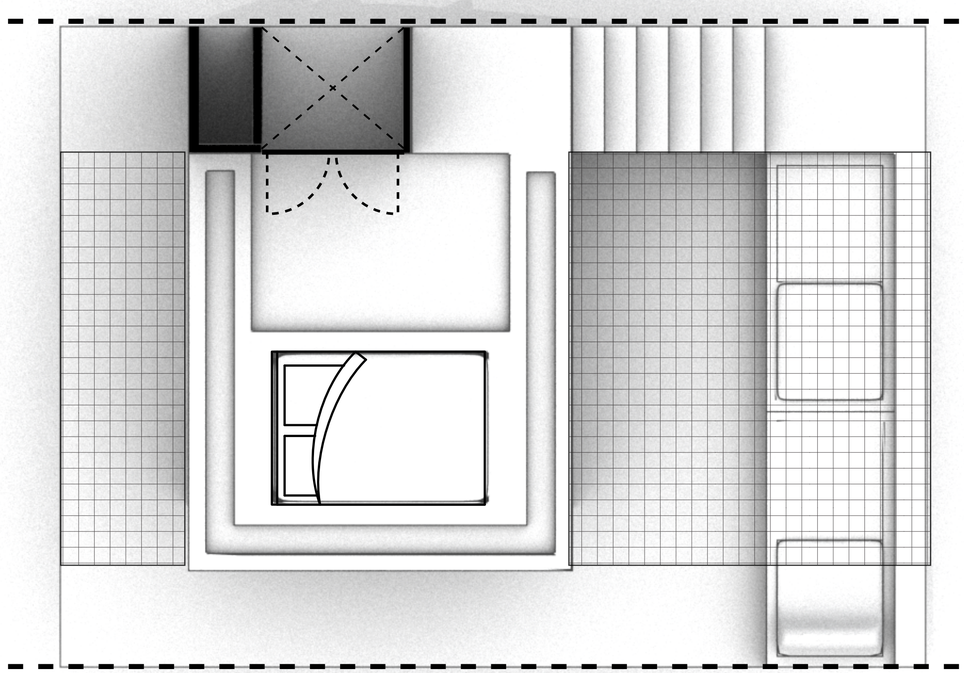
Second floor & optinal acces
to safety net

stairs with storage

seating and storage



First Floor



Second Floor

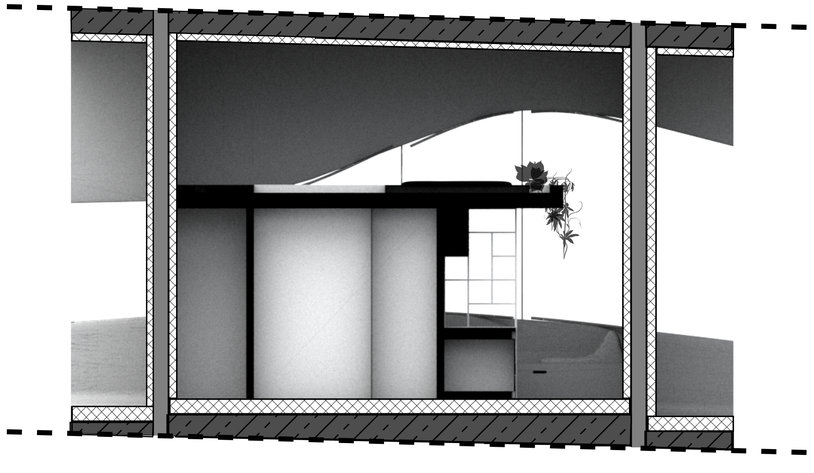
Shaft for vertical
transport of facilities

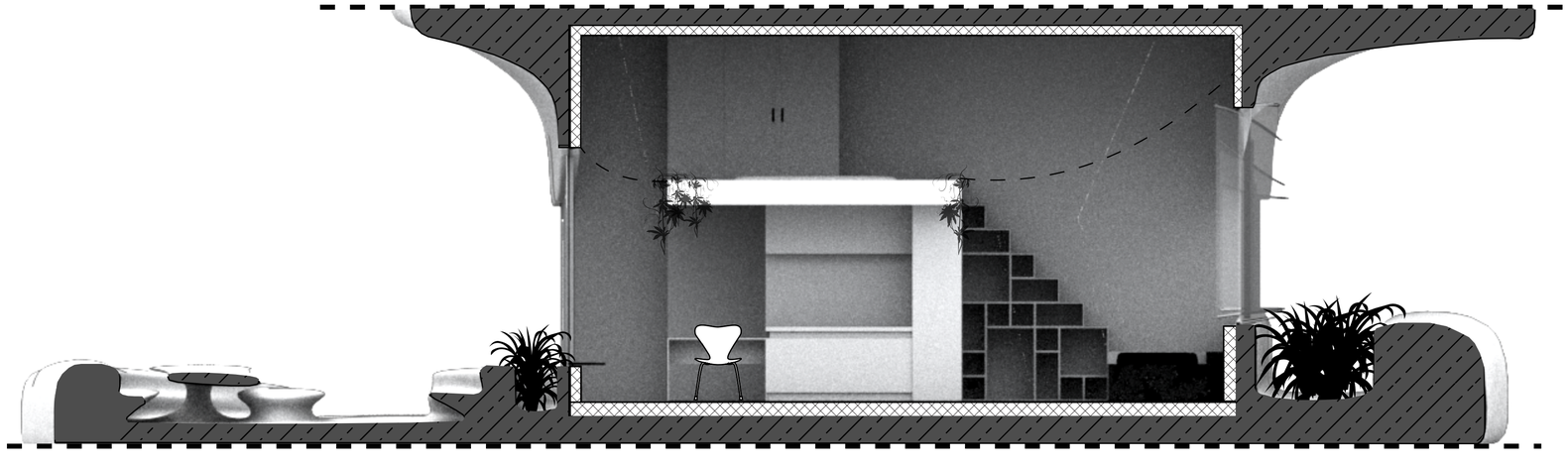
Rotate to open window
0 to 60 degrees

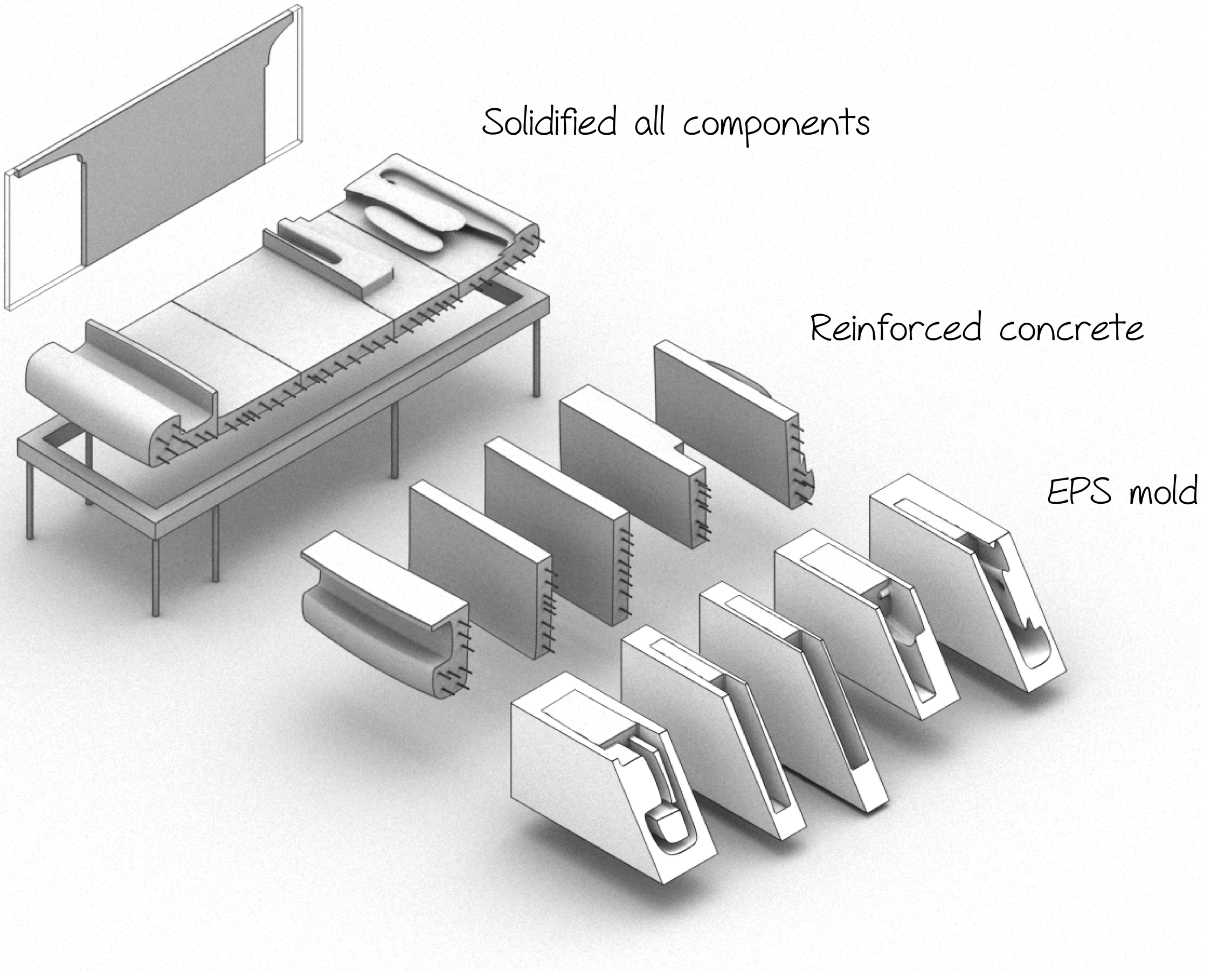
Foundation

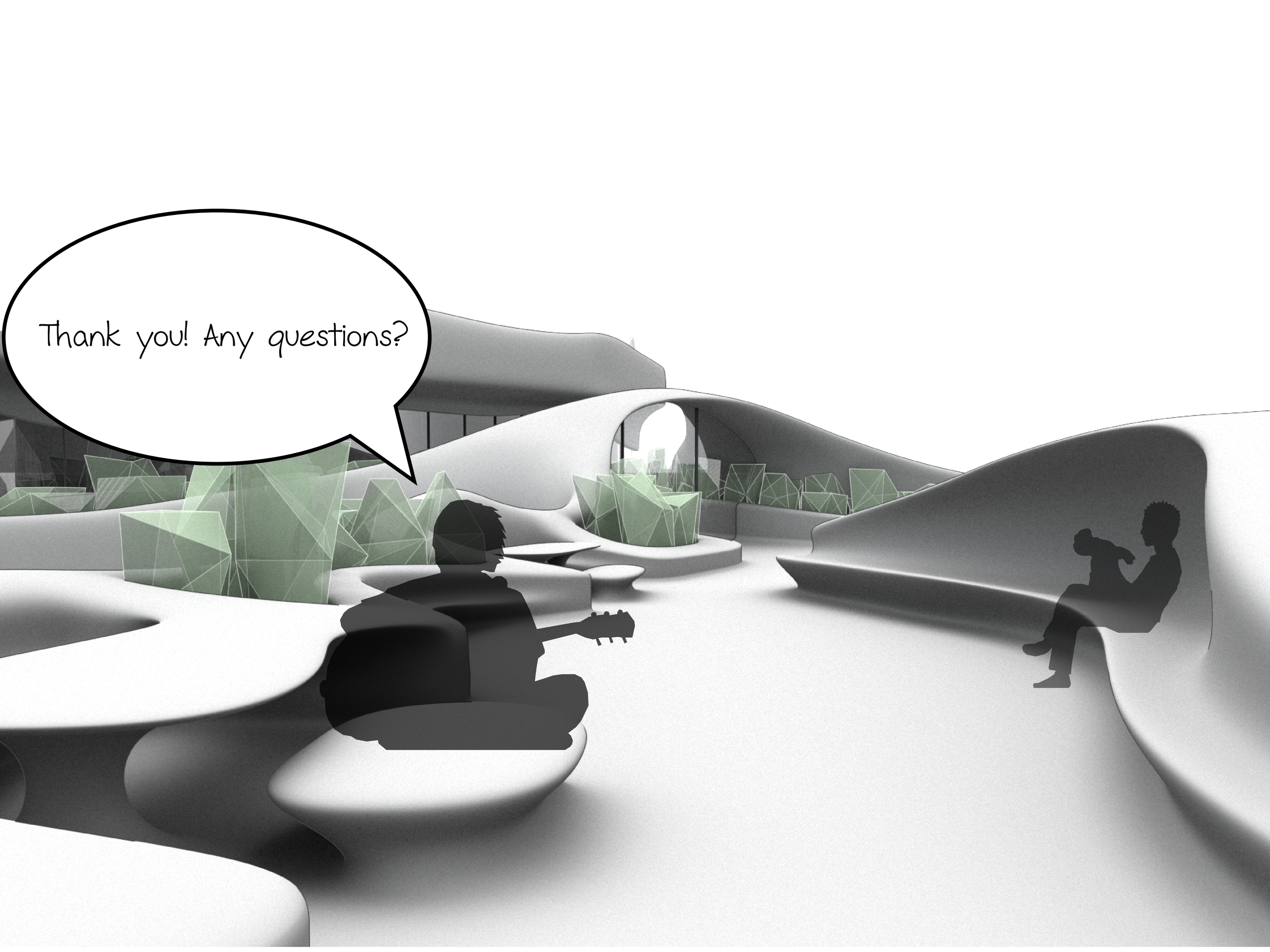
-Insulated floor panels
-Timber floorframe

PreFab components






Solidified all components
Reinforced concrete
EPS mold


Thank you! Any questions?