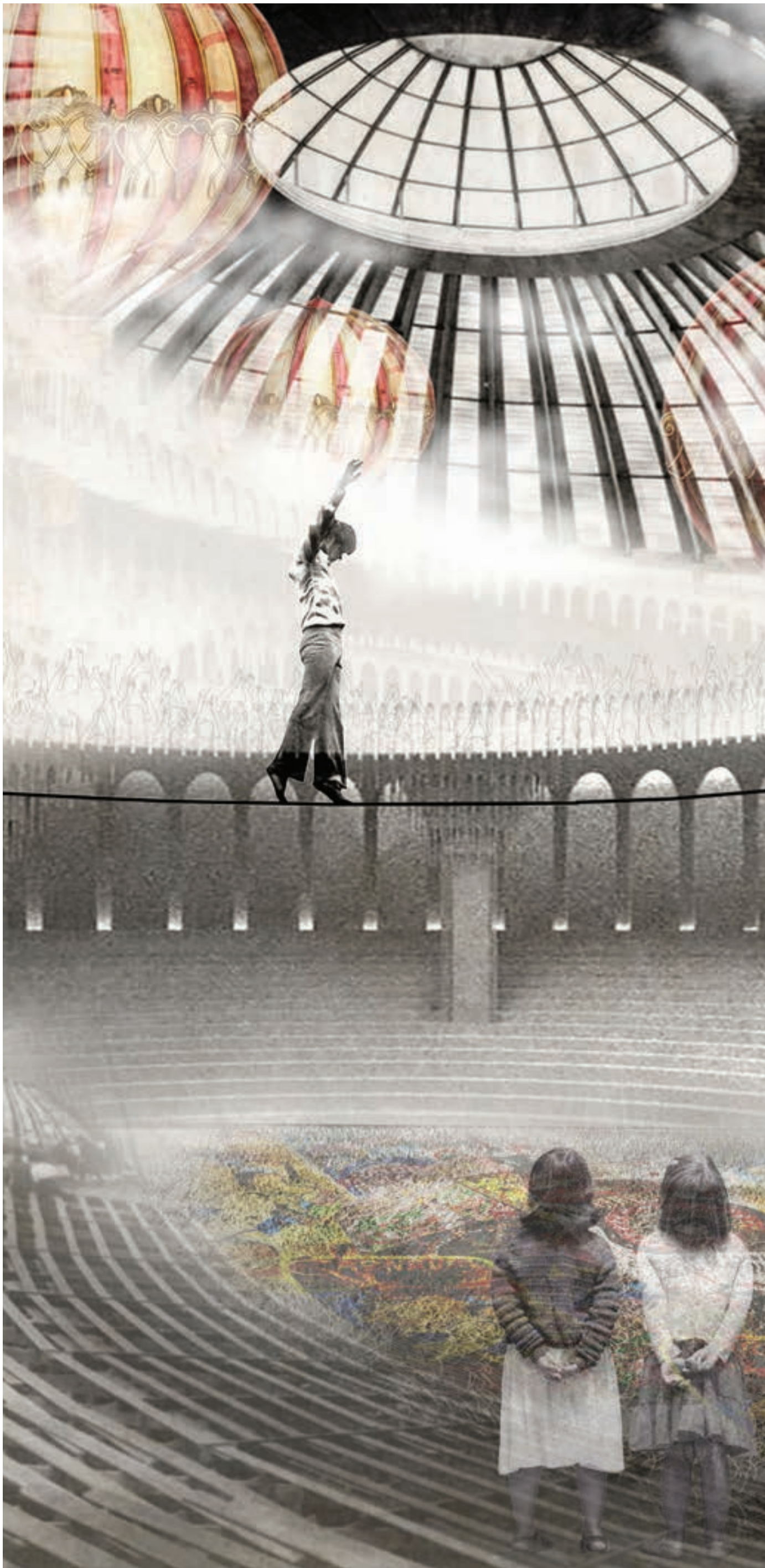


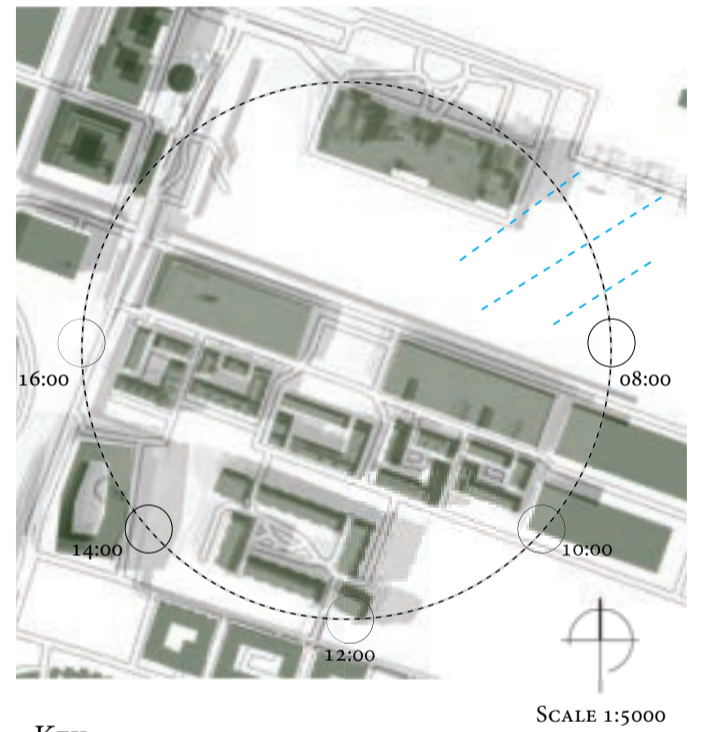
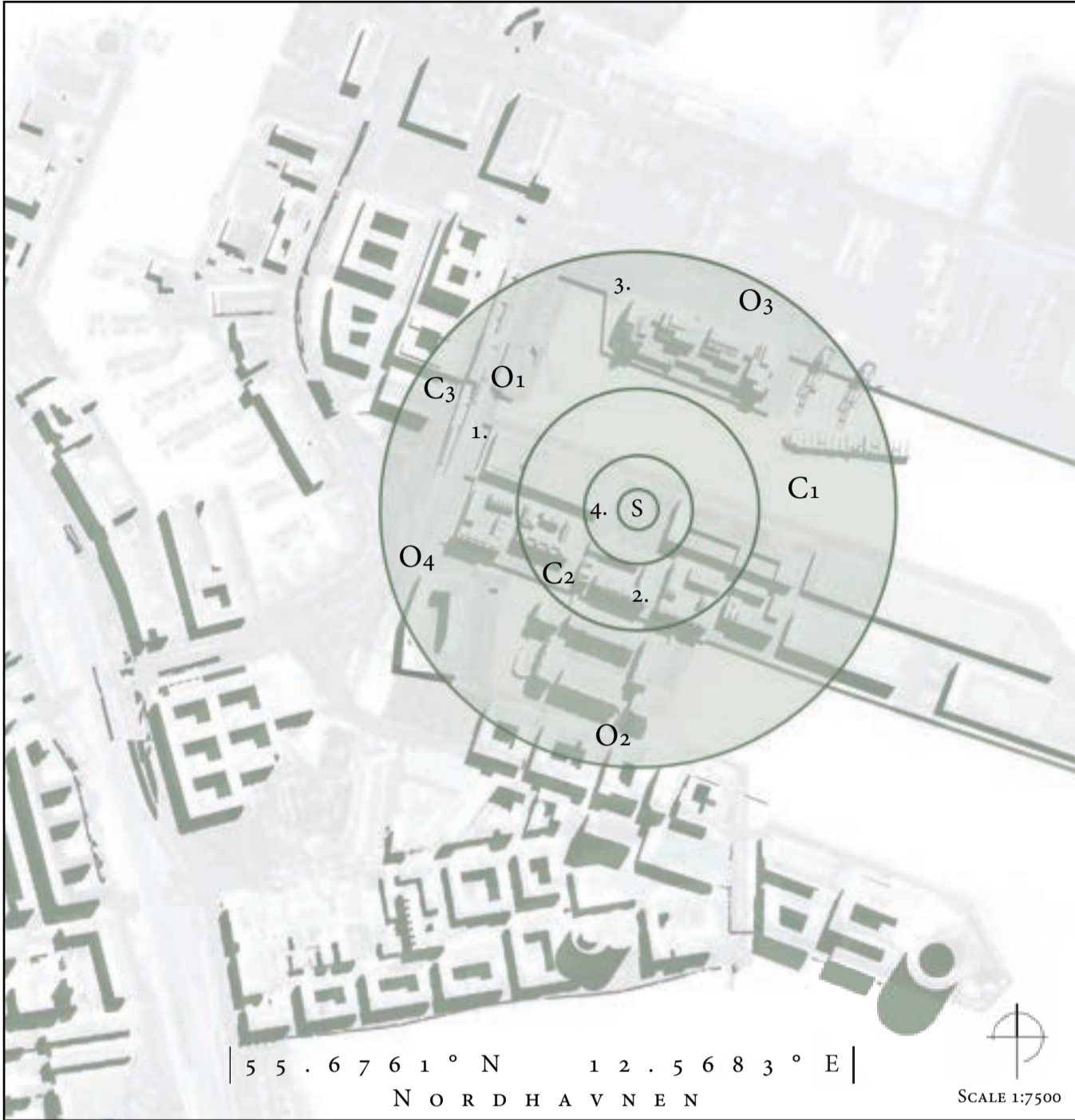
## PROJECT OVERVIEW



# THE BIG TOP

THE CIRCUS, A TEMPORARY STRUCTURE THAT MOVES AND EVOLVES, A FRAMEWORK THAT EMBODIES RISK, SPECTACLE, AND EXPERIMENTATION. IT IS A PLACE WHERE LIMITS CAN BE TESTED, CREATIVITY CAN BE EXPRESSED, AND THE ARCHITECTURE CAN BE ALTERED. MY PROJECT PROPOSES A PERMANENT CONTEMPORARY CIRCUS SCHOOL AND PERFORMING ARTS CENTER THAT EMPHASIZES EDUCATING AND TRANSFERRING SKILLS FROM CIRCUS TRAINING TO NOT ONLY THE YOUTH BUT ALSO THE PEOPLE OF COPENHAGEN. BY EMBEDDING A CIRCUS INTO NORDHAVNEN AS AN EDUCATIONAL SYSTEM, MY PROJECT SEEKS TO SUPPORT THE GROWTH OF STUDENTS IN A MIXED LEVEL OF EDUCATION. I AIM TO ENCOURAGE MOVEMENT AND COLLABORATION TO CONNECT PEOPLE WITH PHYSICAL EXPRESSION, DEVELOPING A PLACE THAT BRINGS PEOPLE TOGETHER TO CELEBRATE OBSCURITIES.

# SITE ANALYSIS



SITE S	OPPORTUNITIES O1-O4	CONSTRAINTS C1-C3
THE SITE IS APPROXIMATELY 2,800 M <sup>2</sup> , SITUATED ON THE WATERFRONT IN NORDHAVNEN, COPENHAGEN. POSITIONED BETWEEN TWO INDUSTRIAL BUILDINGS AND A RESIDENTIAL BLOCK.	NORDHAVNEN IS A RAPIDLY EVOLVING, HIGH-DENSITY URBAN DISTRICT CHARACTERIZED BY A MIX OF RESIDENTIAL, EDUCATIONAL, AND COMMERCIAL INFRASTRUCTURE.	ALTHOUGH NORDHAVNEN IS DEVELOPING, THE SITE IS EXPOSED TO CONSTANT ENVIRONMENTAL PRESSURE AND A LACK OF CULTURAL AND SOCIAL IDENTITY.



1. NORDHAVN METRO STATION, TO THE RIGHT OF THE SITE

- KEY:
- SUN PATH
  - BUILDING SHADOWS
  - ... WIND DIRECTION
  - SURROUNDING BUILDINGS



2. RESIDENTIAL HOMES, BEHIND THE SITE



3. INTERNATIONAL SCHOOL, IN FRONT OF THE SITE



4. AERIAL VIEW OF THE SITE

# BRIEF ANALYSIS



## CIRCUSES C1-C7

THERE ARE **12+** CIRCUSES ACROSS COPENHAGEN BUT 0 PERMANENT VENUES. EVERY YEAR COPENHAGEN HOLDS NUMEROUS PERFORMANCE FESTIVALS. THE CIRCUS COMBINES THEATER, MUSIC, DANCE, GYMNASTICS, AND PUBLIC GATHERINGS, BUT CURRENTLY THERE IS **NO EDUCATIONAL** VENUE DEDICATED TO CIRCUS ARTS.

## THEATRES T1-T7

ANCHORED BY THE ROYAL DANISH THEATRE, WHICH MANAGES **3** MAJOR THEATERS ACROSS COPENHAGEN, EACH THEATER IS RESPONSIBLE FOR BLENDING CULTURE AND HERITAGE INTO THE MODERN CITY. THERE ARE OVER **20** ESTABLISHED THEATERS AND 50 SMALLER THEATER STAGES.

## EDUCATION E1-E7

IN COPENHAGEN THERE ARE OVER **100** SCHOOLS RANGING FROM PRIMARY TO HIGHER EDUCATION. THERE ARE 16 NATIONAL SCHOOLS, ALL OF WHICH LACK ALTERNATIVE PHYSICAL AND EXPRESSIVE SPACES. THE CIRCUS BUILDS CONFIDENCE, COLLABORATION, PHYSICAL FITNESS AND **INCLUSIVITY**, ALL OF WHICH ARE BENEFICIAL TRAITS FOR YOUTHS.

### WHY COPENHAGEN NEEDS A CIRCUS SCHOOL:

RANKED **41/42** BY THE WHO IN REGARDS TO PHYSICAL ACTIVITY

**50%** OF CHILDREN IN YEARS 6 ONWARDS ARE INCREASINGLY BECOMING LESS ACTIVE AND MORE DISRACTED BY SCREENS

FOR EVERY **£1** INVESTED IN A YOUTH CIRCUS PROGRAME, **£7** OF SOCIAL AND ECONOMIC VALUE IS CREATED, RESEARCHED BY THE SROI

**100%** ELIMINATION OF A GENDER GAP AS THE CIRCUS IS FRAMED AROUND INCLUSIVITY

THE CST PROVED THAT WITH JUST **3 MONTHS** OF STRUCTURED CIRCUS TRAINING A CHILDS, CONFIDENCE, STRENGTH, PROBLEM SOLVING, ENDURANCE AND MOBILITY

WILL BE IMPROVED BY **25%**

### CIRCUS TRAINING

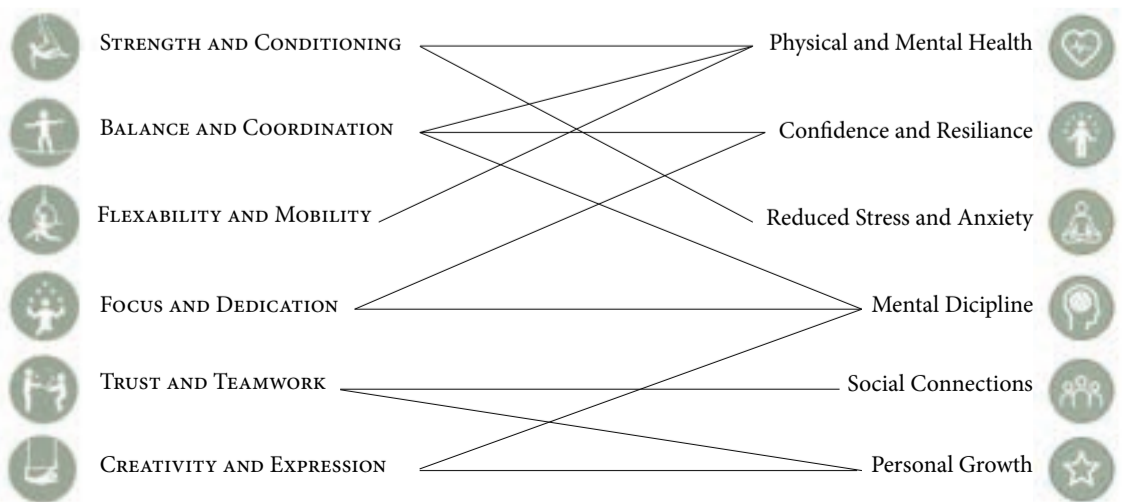


- STRENGTH AND CONDITIONING
- BALANCE AND COORDINATION
- FLEXABILITY AND MOBILITY
- FOCUS AND DEDICATION
- TRUST AND TEAMWORK
- CREATIVITY AND EXPRESSION

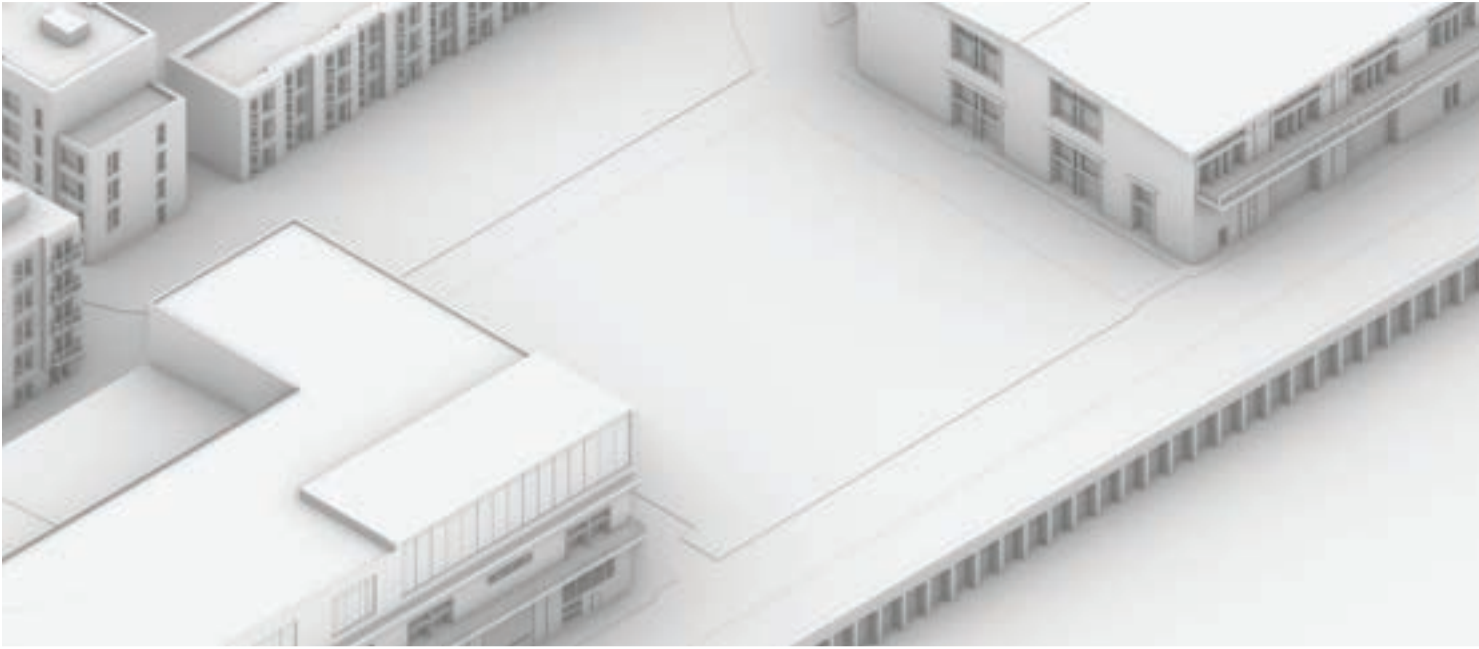
### HEALTH BENEFITS



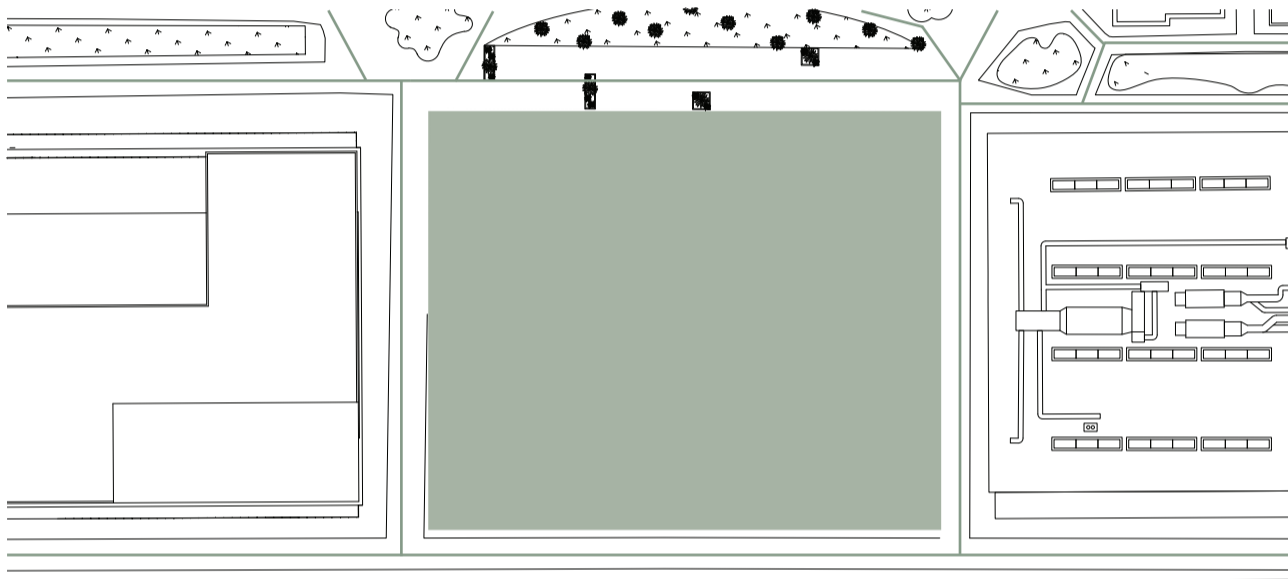
- Physical and Mental Health
- Confidence and Resilience
- Reduced Stress and Anxiety
- Mental Dicipline
- Social Connections
- Personal Growth



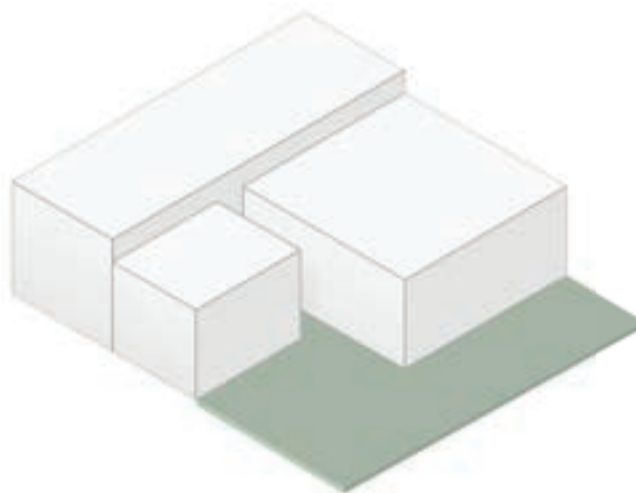
# DESIGN DEVELOPMENT



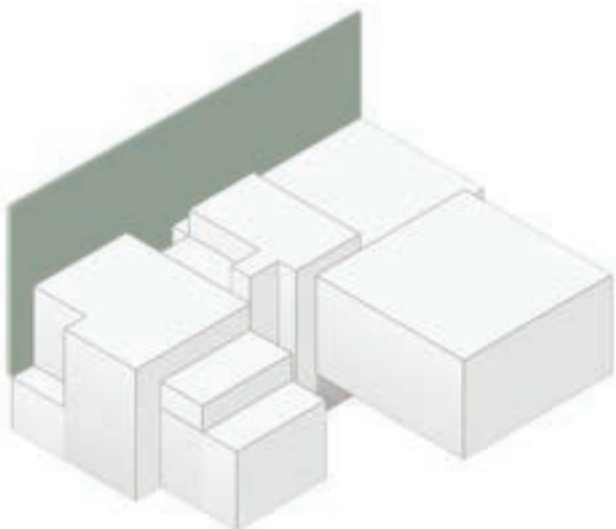
The site is 2800 m<sup>2</sup>, and it is built on reclaimed land, meaning that its foundations are unpredictable and weak. The position of the neighboring buildings means that my project can't overbear them; it needs to allow room for light to still enter both buildings, which have windows overlooking the site.



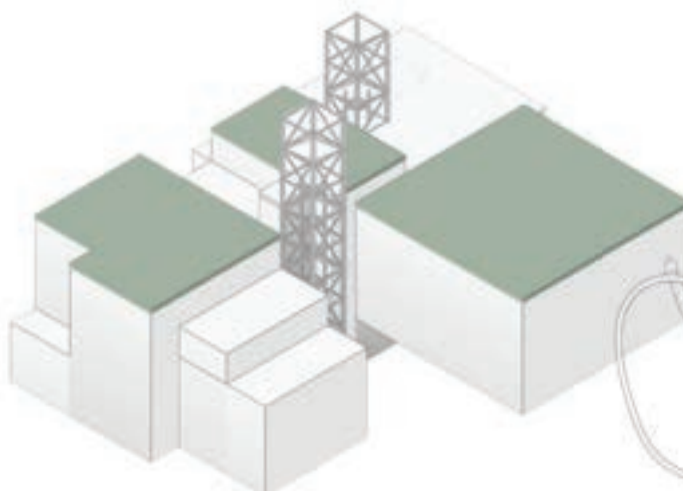
THE DESIGN IS BUILT OFF OF A SHALLOW GRID FOUNDATION THAT GOES 10 METERS DEEP INTO THE SITE FOR STABILITY. BEING A FLAT SITE, I DIDN'T NEED TO ACCOUNT FOR LEVEL CHANGE BUT INSTEAD KEPT A LEVEL AND STABLE FOUNDATION FOR THE CIRCUS.



MY BUILDING WAS DESIGNED AROUND MOVEMENT, CREATING A CENTRAL BUILDING WHERE YOU COULD STILL PASS THROUGH EITHER SIDE. THE BUILDING IS SPLIT BY USAGE, CREATING EDUCATION AND PERFORMANCE BLOCKS, WHICH ALL COME TOGETHER.

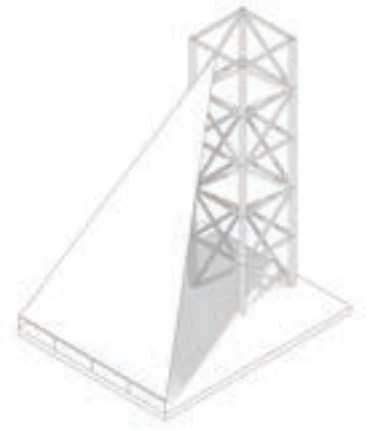


THE DESIGN WAS RAISED, CREATING OVERHANGING PERFORMANCE SPACES. EACH BLOCK WAS SCULPTED TO ALLOW LIGHT TO MOVE PAST THE BUILDING AS WELL AS OPENING UP TRIPLE-HEIGHT SPACES FOR THE COLLEGE AND PERFORMANCE SPACE.

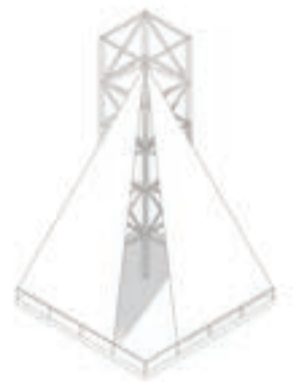


FOR CIRCULATION I HAVE TWO CLOSED-OFF STEEL STRUCTURES THAT HAVE STAIRS AND LIFTS WITHIN THEM, ALLOWING EASY MOVEMENT AROUND MY BUILDING. THE ROOFS ARE GREENED, CREATING SOFT PERFORMANCE SPACES WHILE ALSO HELPING COOL THE BUILDING.

SINGLE SPLIT STRUCTURE



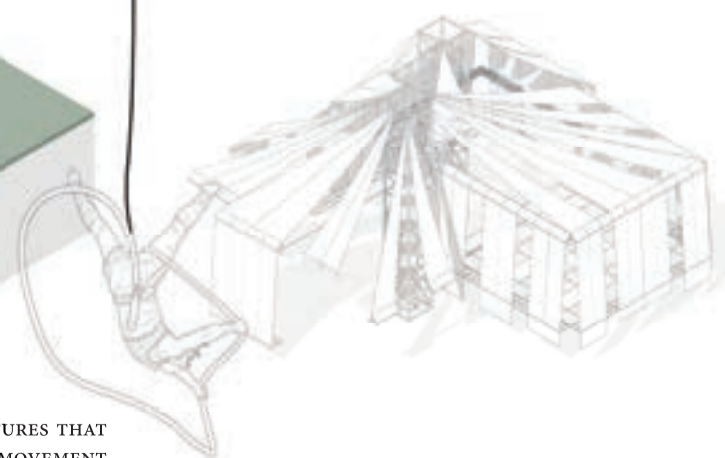
CROSS SPLIT STRUCTURE



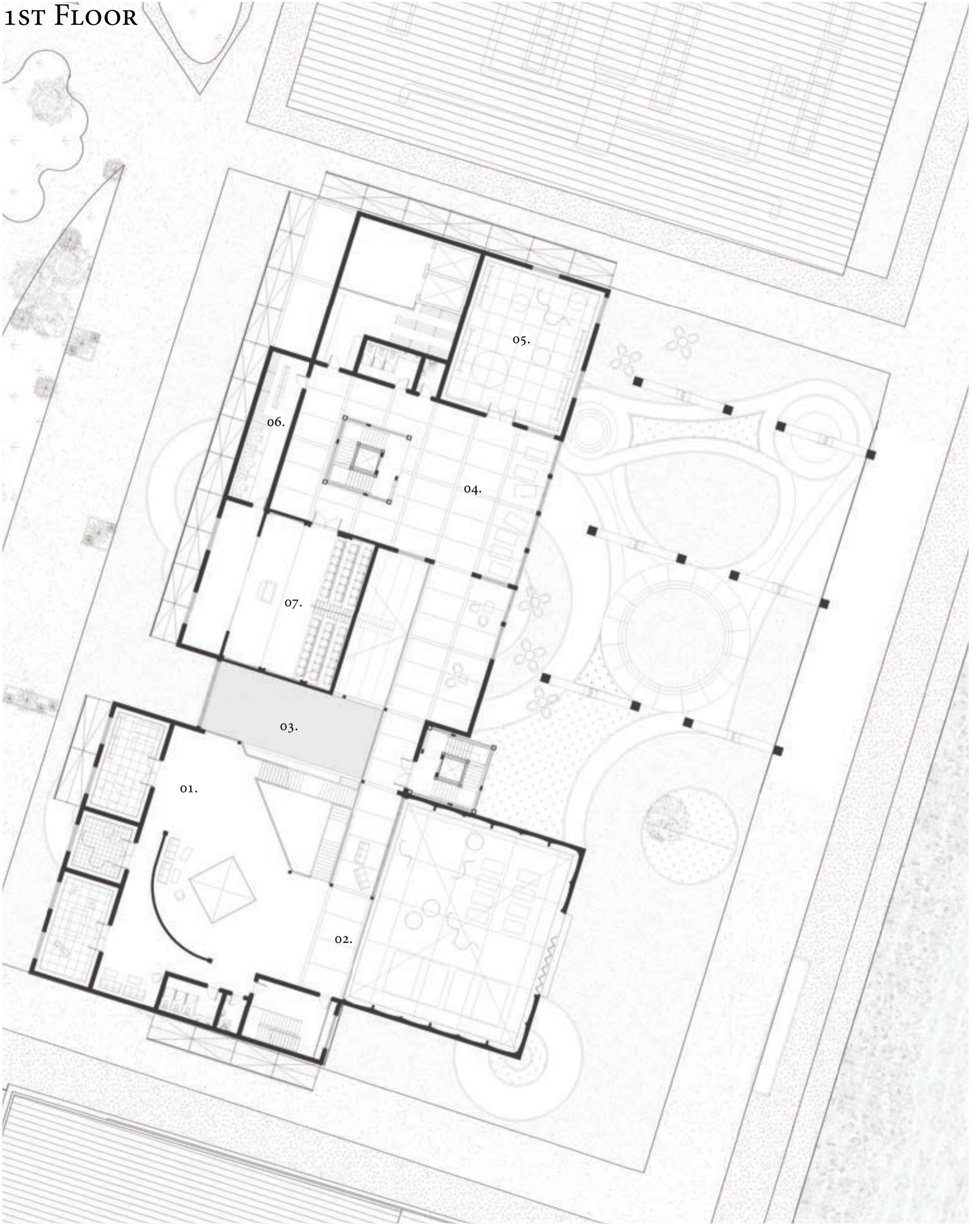
SINGLE POINT SPLIT STRUCTURE



MULTIPLE SPLIT POINT STRUCTURE

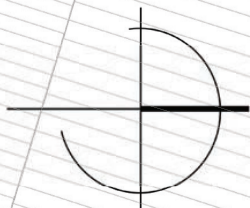


# 1ST FLOOR

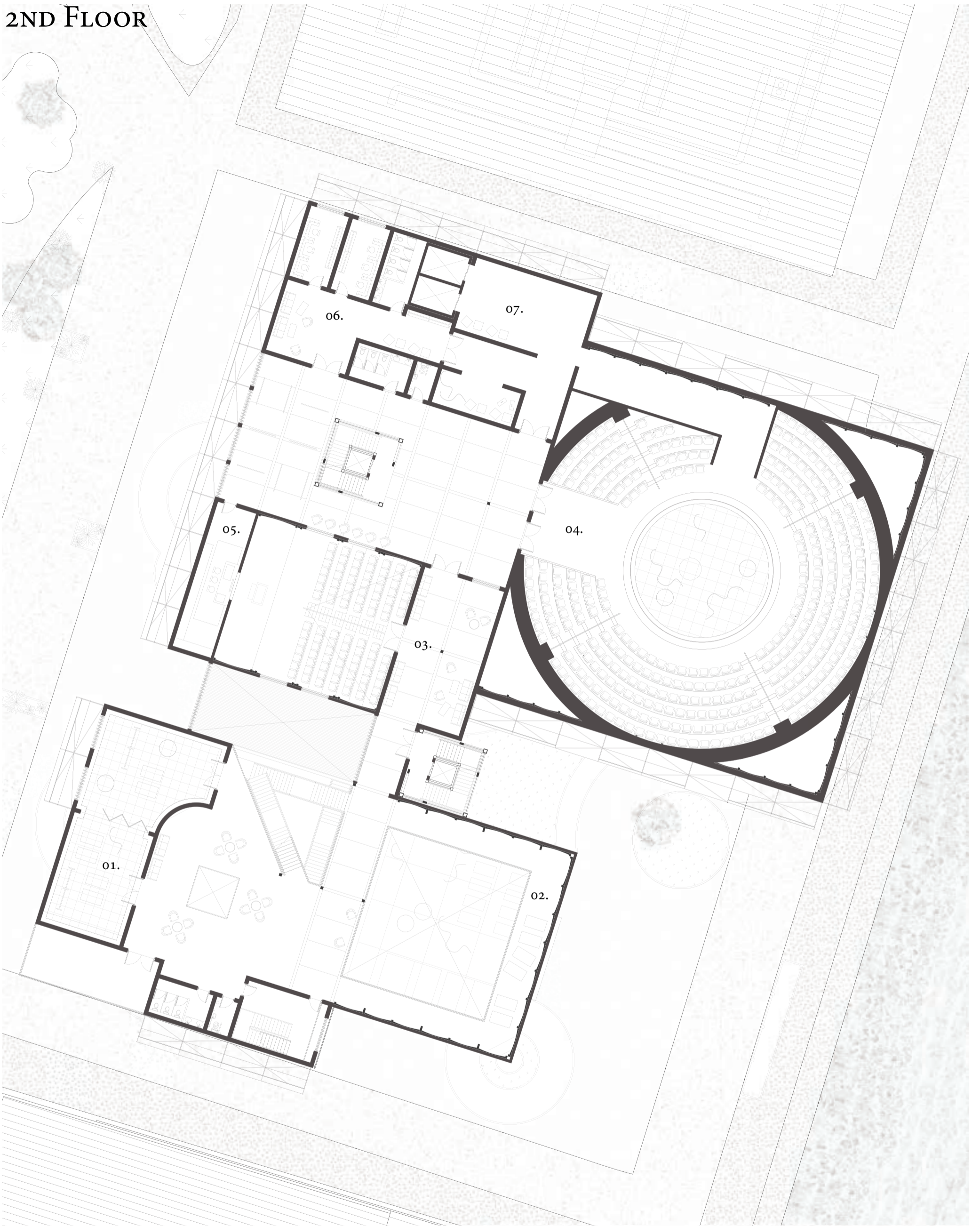


KEY:

- 01. COMMUNITY PRACTICE ROOMS
- 02. VIEWING BALCONY
- 03. CIRCUS SAFTEY NET
- 04. WARMUP / PRACTICE SPACE
- 05. PRIVATE REHERSAL ROOM
- 06. PERFORMER CHANING ROOMS
- 07. PERFORMANCE HALL 1

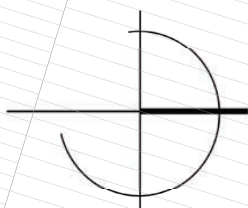


# 2ND FLOOR



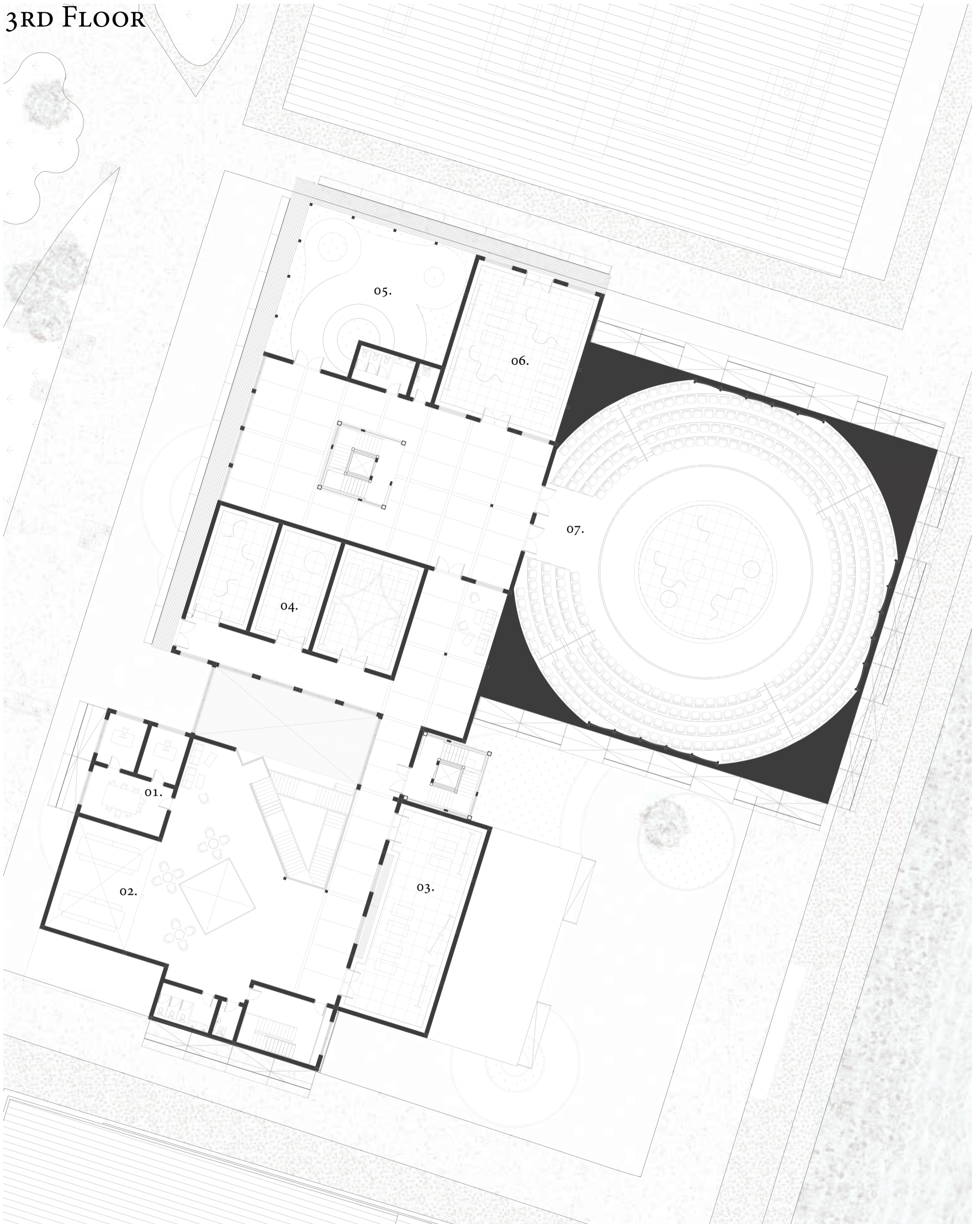
## KEY:

- 01. PERFORMANCE ACTS TRAINING SPACE
- 02. WORKOUT BALCONY SPACES
- 03. PERFORMANCE SPACE 1 ENTRANCE
- 04. MAIN CIRCUS PERFORMANCE SPACE
- 05. BACKSTAGE TECH ROOM
- 06. BACKSTAGE CHANGING ROOMS
- 07. STAGE PROP STORAGE AND TRANSPORT



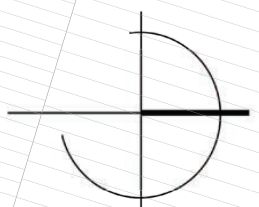
1:250

# 3RD FLOOR



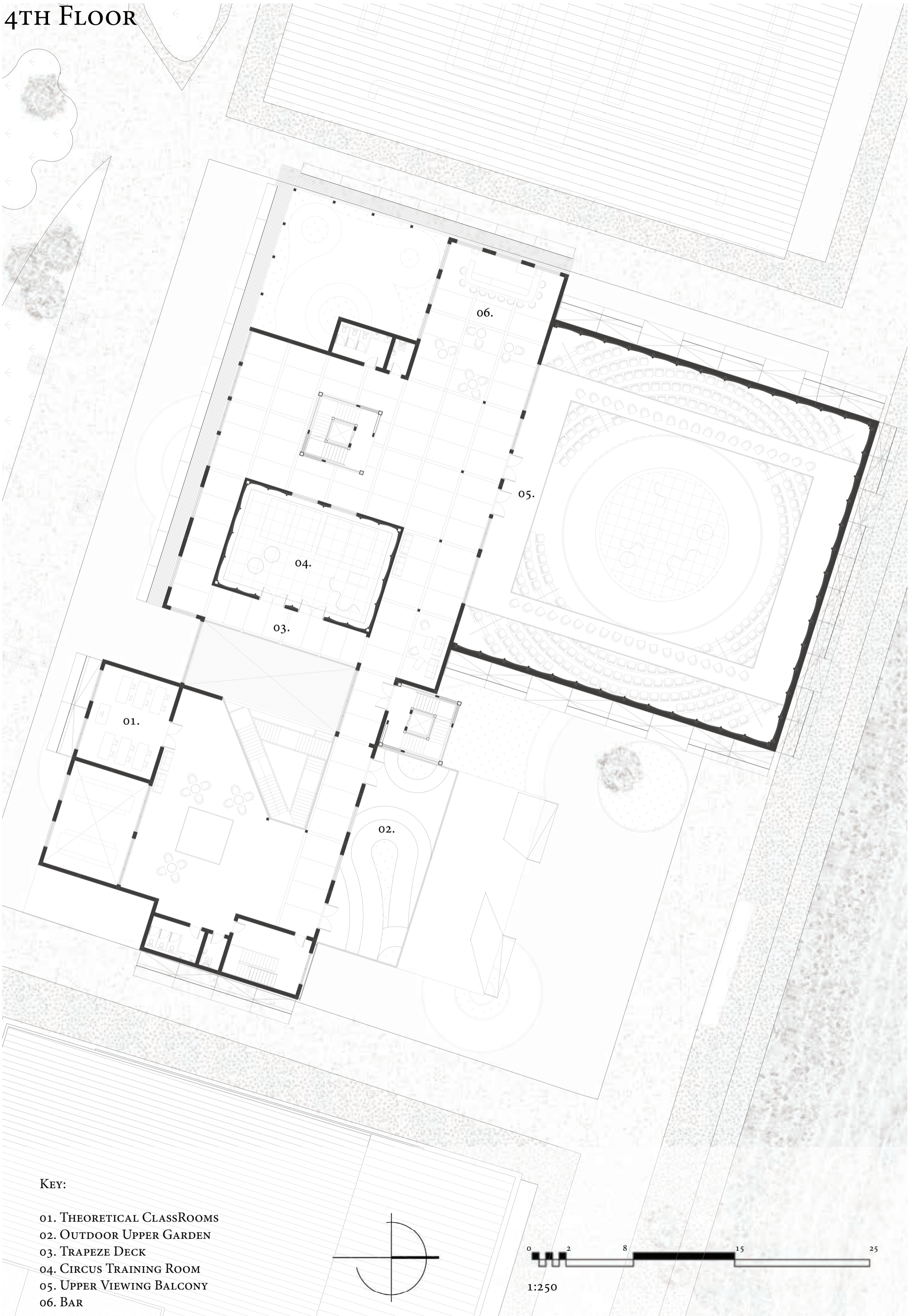
## KEY:

- 01. OFFICE SPACES
- 02. COLLAGE SEATING
- 03. DANCE / CHOREOGRAPHY
- 04. REHEARSAL/ PRACTICE ROOMS
- 05. OUTDOOR GARDEN
- 06. PRIVATE HIRED REHEARSAL SPACE
- 07. MID TIER VIEWING BALCONY



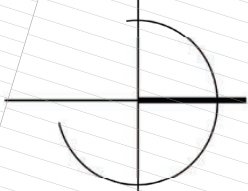
1:250

# 4TH FLOOR



**KEY:**

- 01. THEORETICAL CLASSROOMS
- 02. OUTDOOR UPPER GARDEN
- 03. TRAPEZE DECK
- 04. CIRCUS TRAINING ROOM
- 05. UPPER VIEWING BALCONY
- 06. BAR



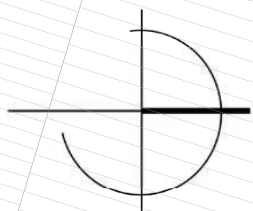
1:250

# 5TH FLOOR

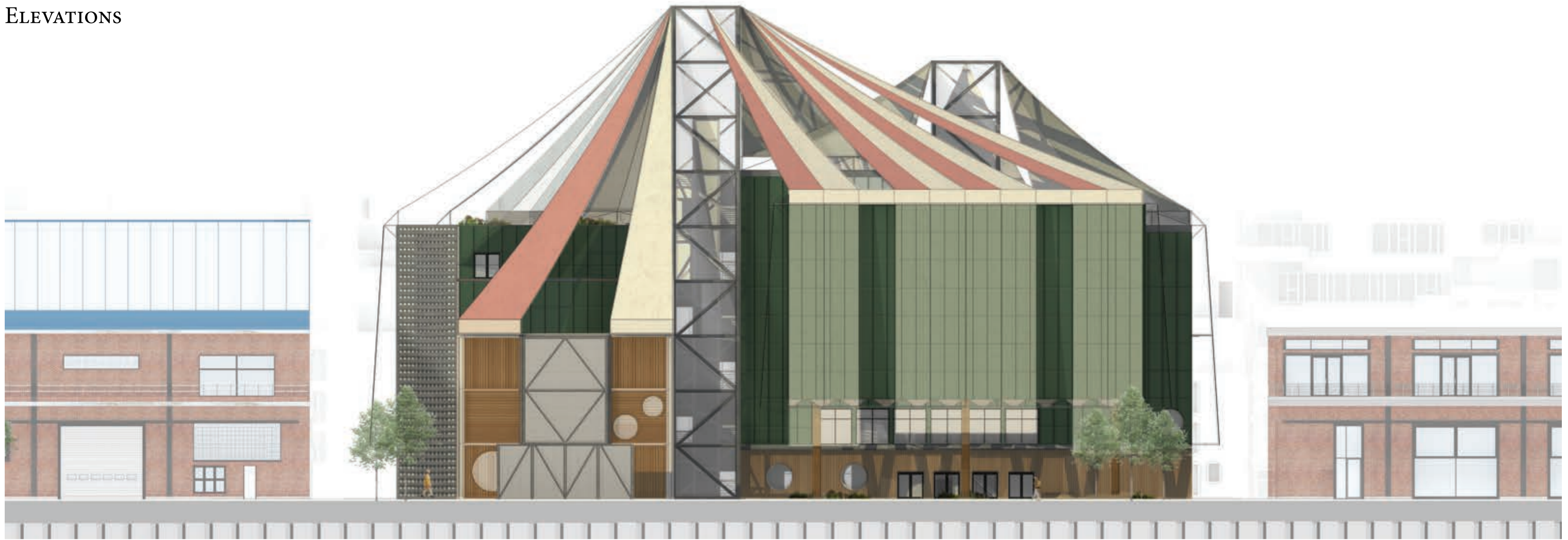


## KEY:

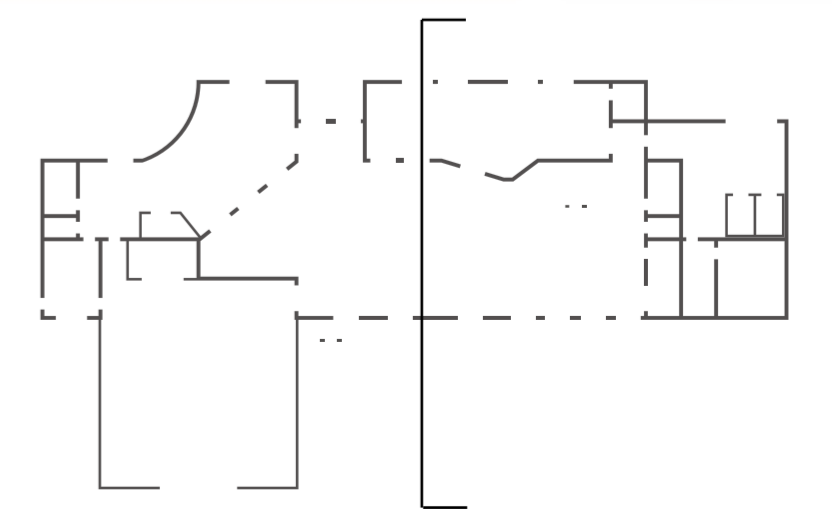
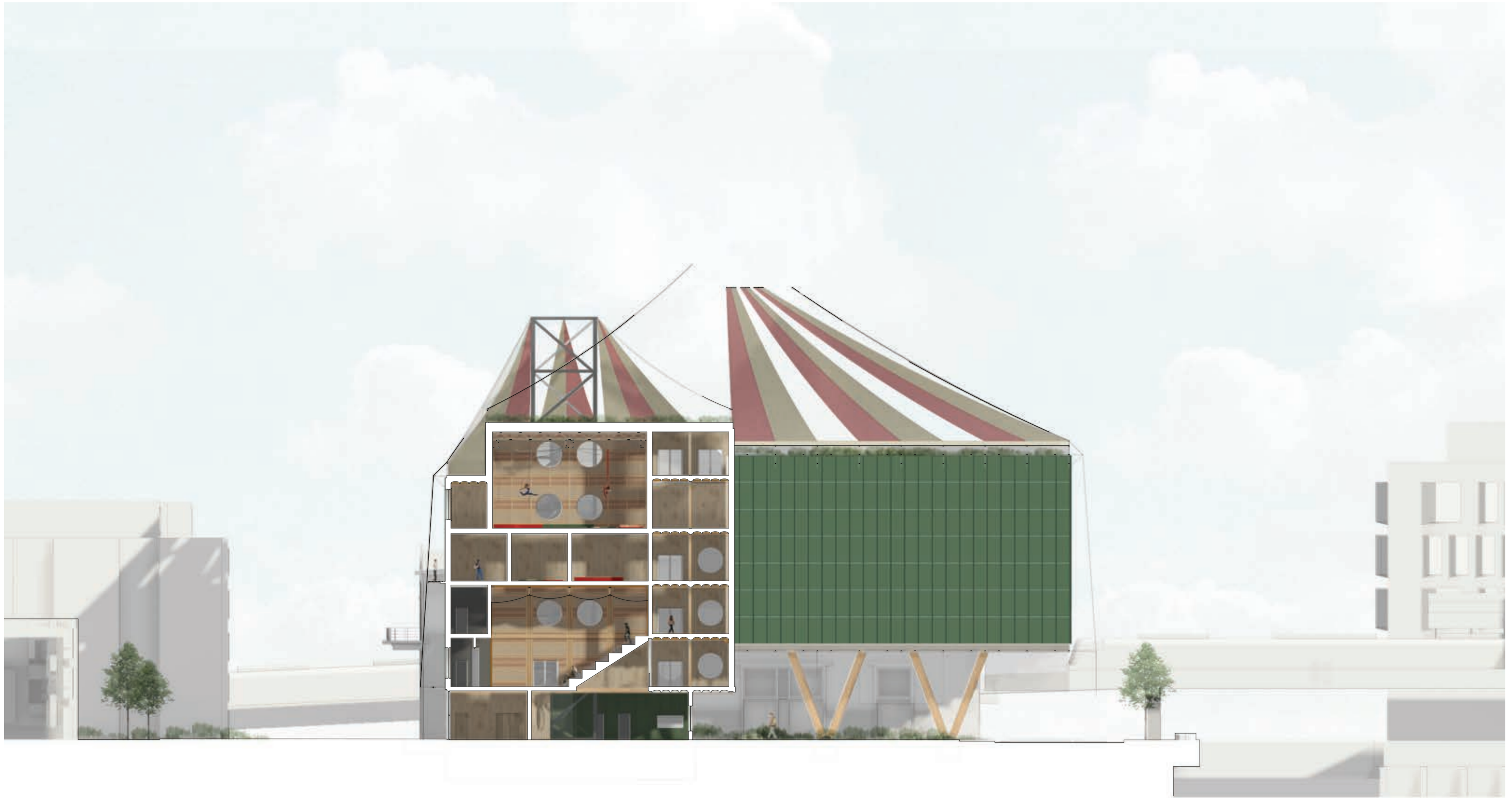
- 01. OUTDOOR ROOFTOP GARDEN
- 02. VIEWING BALCONY
- 03. MAIN ROOF GARDEN
- 04. OUTDOOR PERFORMANCE



ELEVATIONS

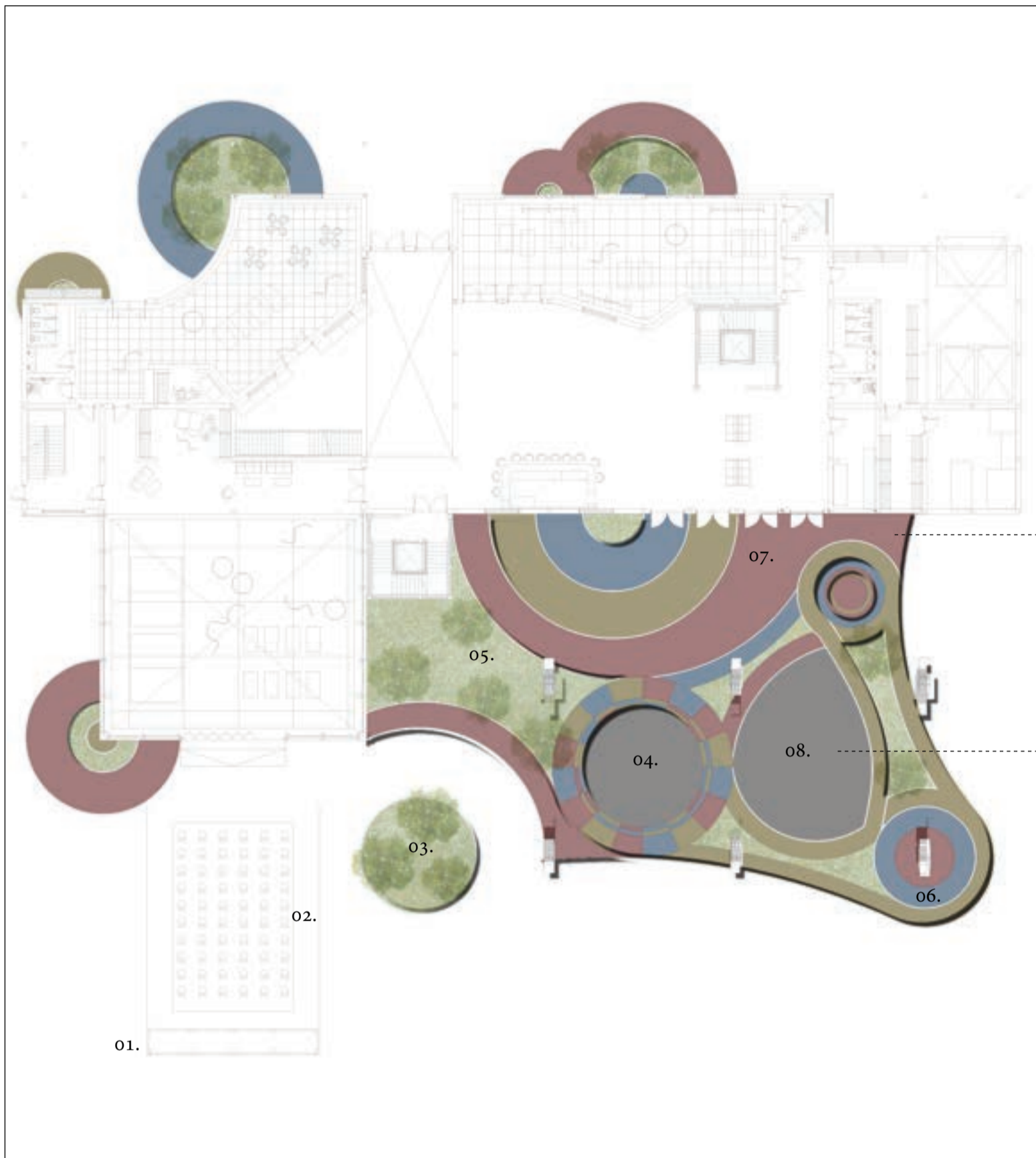


SECTION BB



1:200

# LANDSCAPE STRATEGY



MY LANDSCAPE REVOLVES AROUND CREATING A SOFT AND PLAYFUL SURFACE WHERE PEOPLE CAN PRACTICE, PERFORM, AND PLAY. THE CORK IS DYED AND SEPARATED BY SMALL PARTITIONS THAT ALL LEAD TO THE MAIN ENTRANCE OF THE BUILDING. BOTH MATERIALS CAN BE SOURCED LOCALLY IN COPENHAGEN: THE CORK FROM KORKBYG, AND THE RUBBER CAN BE RECYCLED FROM OLD RUBBER TIRES.

## CORK SURFACING



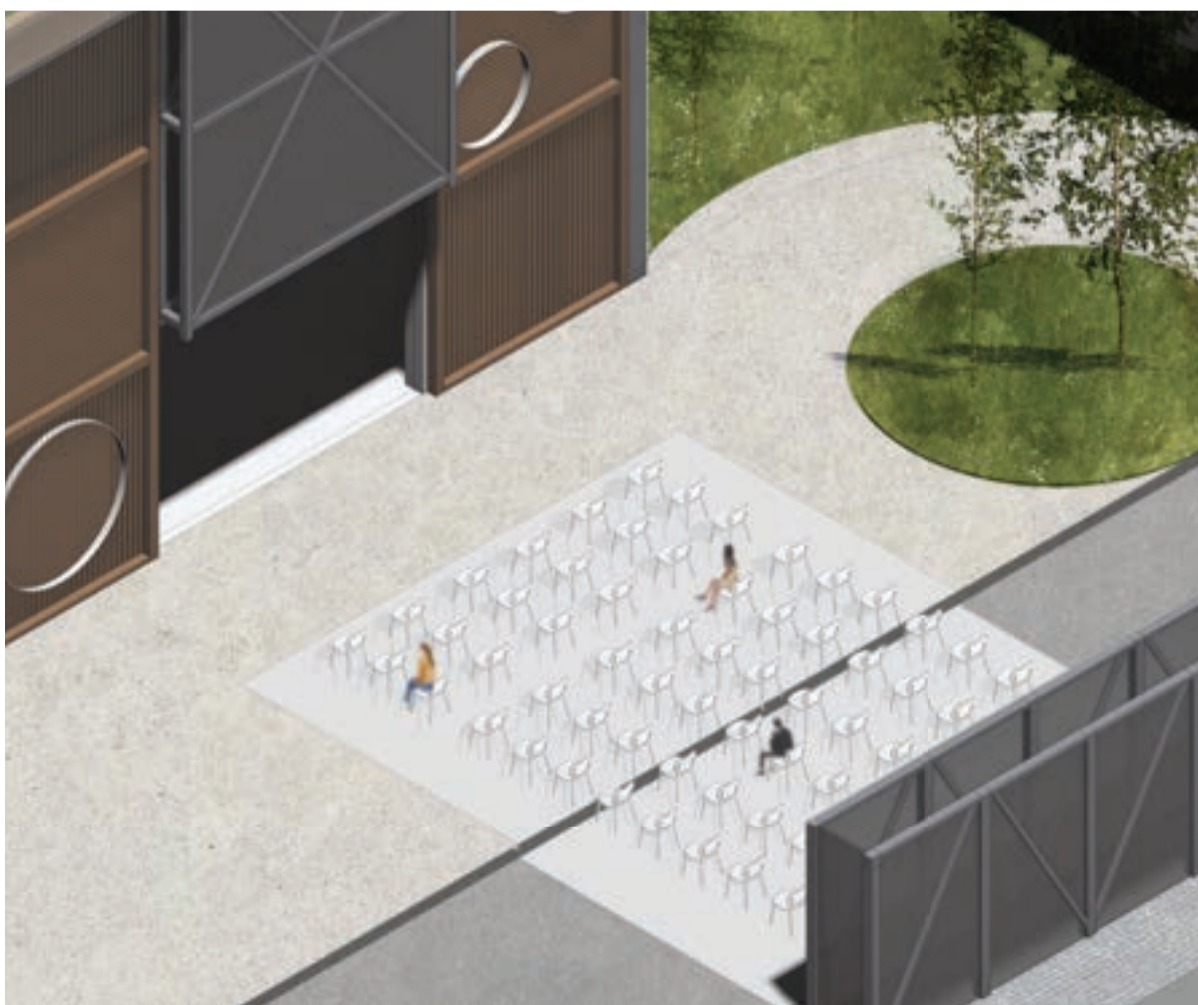
## RUBBER CRUMB



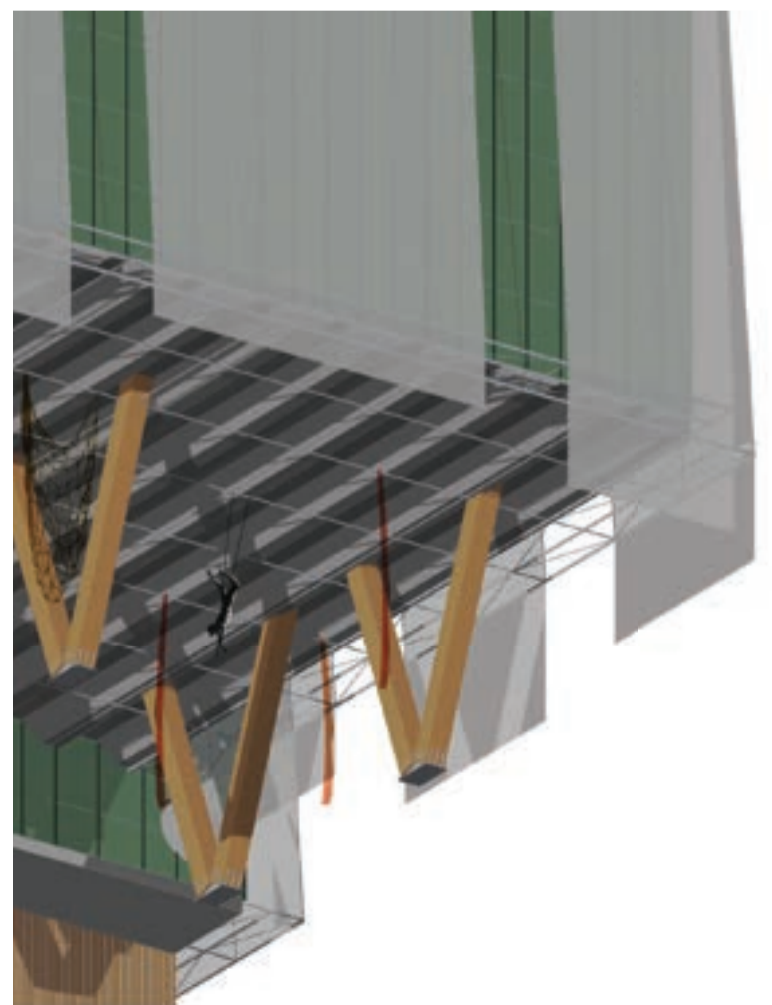
Key:

- 01. Wind Breaker
- 02. Temporary Seating
- 03. Performance Greenery
- 04. Performance Pit
- 05. Greenery Dividers
- 06. Raised Surfaces
- 07. Cork Surfacing
- 08. Rubber Crumb Flooring

TEMPORARY SEATING FOR THE PERFORMANCE SPACE



OUTDOOR TRAINING AND MULTI USE PERFORMANCE SPACE

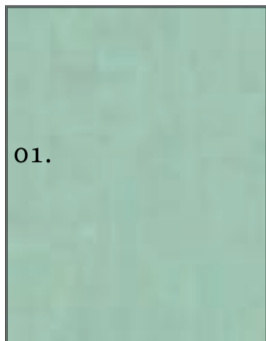


# MATERIAL STRATEGY



WOODLAND EDUCATION CENTRE,  
WONKY

- RECLAIMED SHIPPING CONTAINERS
- MILITARY PARACHUTE
- NATURAL TIMBER
- POLYCARBONATE PANELS



01.



02.



03.



04.



05.



06.

01. OXIDIZED ZINC PANELS  
PRIMARY CLADDING  
SUPPLIER: GENBYG, COPENHAGEN  
EMBODIED CARBON: 10KG CO<sub>2</sub>E/ M<sup>2</sup>

02. NATURALLY DRIED RAMMED EARTH  
INTERIOR CLADDING  
SUPPLIER: RECLAIMED EARTH, NORDHAVNEN  
EMBODIED CARON: NEUTRAL

03. GALVANIZED STEEL  
SECONDARY STRUCTURE  
SUPPLIER: JD STEEL, NORDHAVNEN  
EMBODIED CARBON: 40KG CO<sub>2</sub>E/M<sup>2</sup>

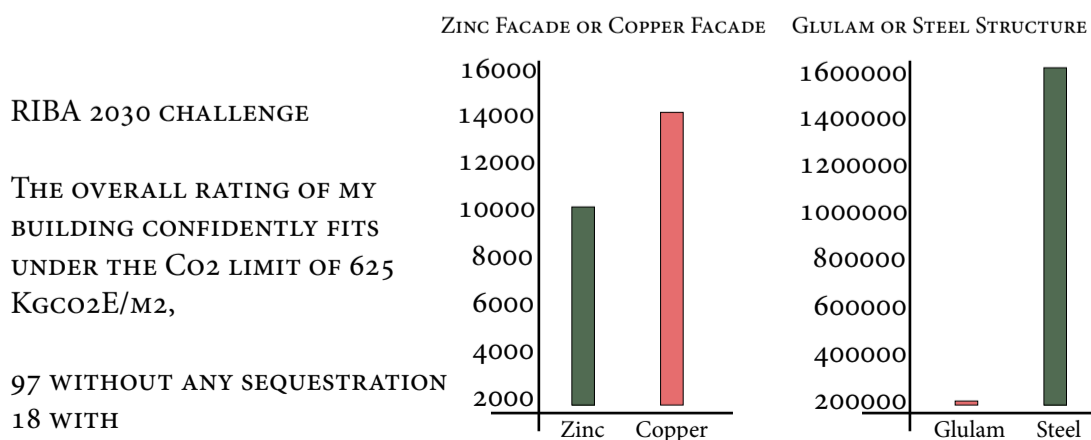
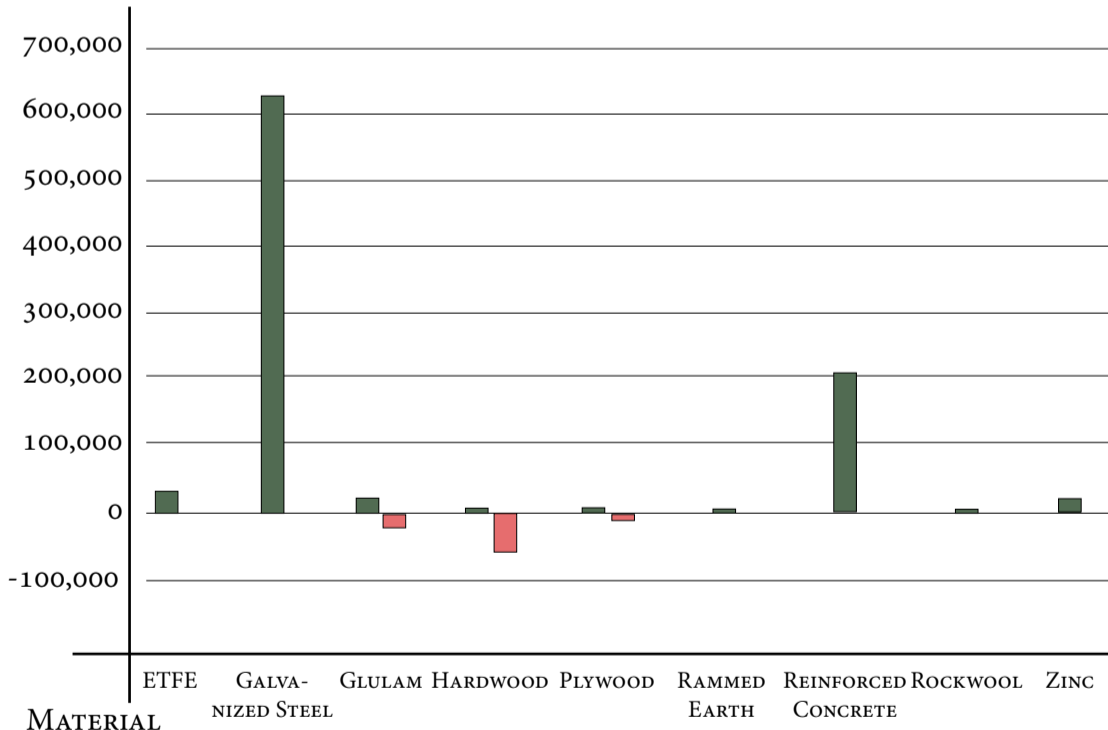
04. GLULAM BEAMS  
PRIMARY STRUCTURE  
SUPPLIER: LILLEHEDEN, DENMARK  
EMBODIED CARBON: 0.4KG CO<sub>2</sub>E/KG

03. ETFE SHEETS  
EXTERIOR SECOND SKIN  
SUPPLIER: LINATEX, COPENHAGEN  
EMBODIED CARBON: 10KG CO<sub>2</sub>E/ M<sup>2</sup>

06. PVC COATED POLYESTER  
PRIMARY ROOF STRUCTURE  
SUPPLIER: CIRCUS PANIK, COPENHAGEN  
EMBODIED CARBON: NEUTRAL

## CARBON CALCULATION

TOTAL CO<sub>2</sub>E



RIBA 2030 CHALLENGE

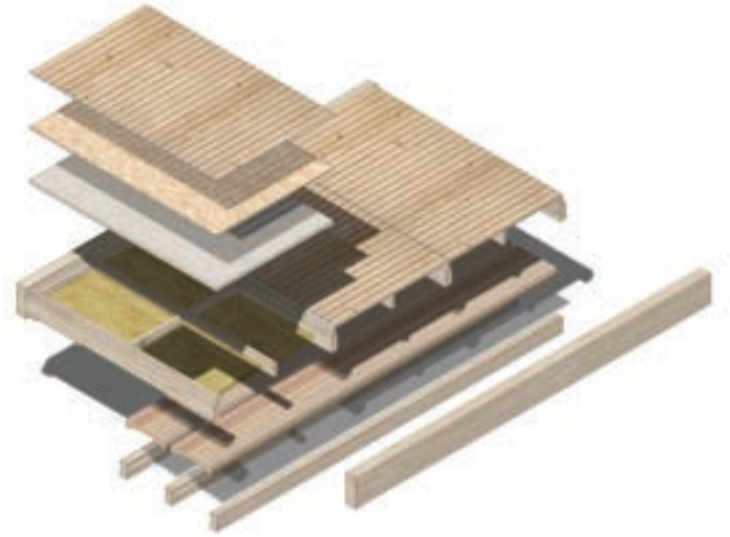
THE OVERALL RATING OF MY BUILDING CONFIDENTLY FITS UNDER THE CO<sub>2</sub> LIMIT OF 625 KGCO<sub>2</sub>E/M<sup>2</sup>,

97 WITHOUT ANY SEQUESTRATION  
18 WITH

I HAVE CHOSEN TO USE ZINC AND GLULAM AS A SUSTAINABLE ALTERNATIVE, EVEN THOUGH BOTH ZINC AND COPPER ARE VERY SIMILAR IN TERMS OF PERFORMANCE, THEIR CARBON IMPACT IS DIFFERENT MAKING ZINC A MORE EFFICIENT MATERIAL.

### 1:50 HYBRID EARTH AND TIMBER FLOOR BUILD UP

TIMBER STUDS, TIMBER FLOOR BOARDS, DRY SCREED, GUTEX STANDARD, PE MEMBRANE, PLYWOOD PANEL, RAMMED EARTH, INSULATION



### 1:50 RAMMED EARTH WALL BUILD UP

TIMBER STUDS, GLULAM BEAMS, WATER PROOF MEMBRANE, RAMMED EARTH, ROCKWOOL INSULATION, PLYWOOD BOARD, CHIP BOARD, DIAGONAL TIMBER FRAME

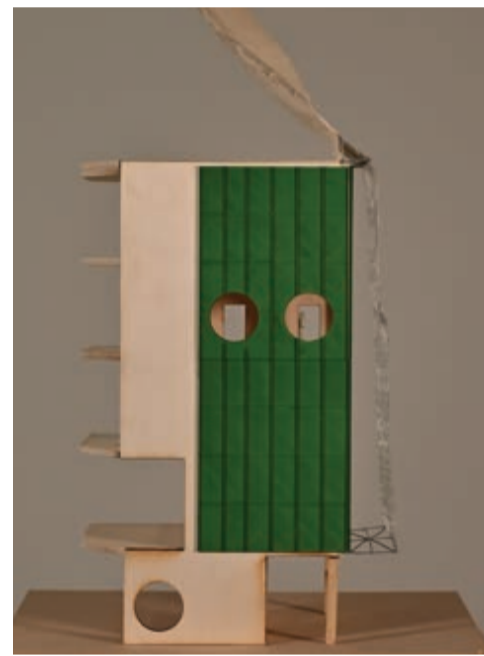
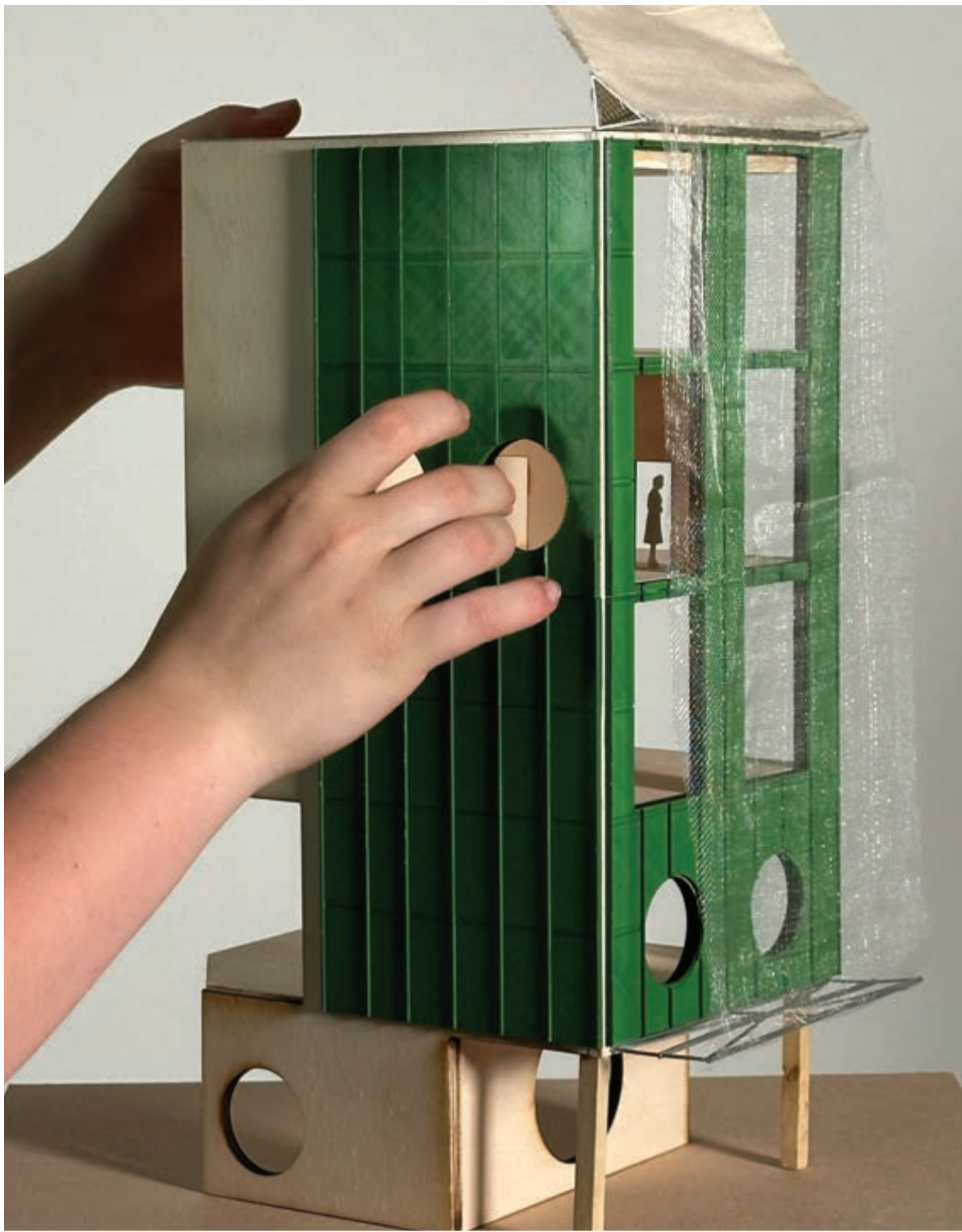


### 1:50 ZINC CLADDING BUILD UP

PLASTERBOARD, STEEL BRACKETS, VERTICAL AND HORIZONTAL STUDS, OXIDISED ZINC PANELS, GALVANISED STEEL BRACKETS, CHIPBOARD, INSULATION



# MODEL PHOTOS



1 : 5 0  
SECTIONAL  
CUT MODEL



1 : 2 0 0  
MODEL