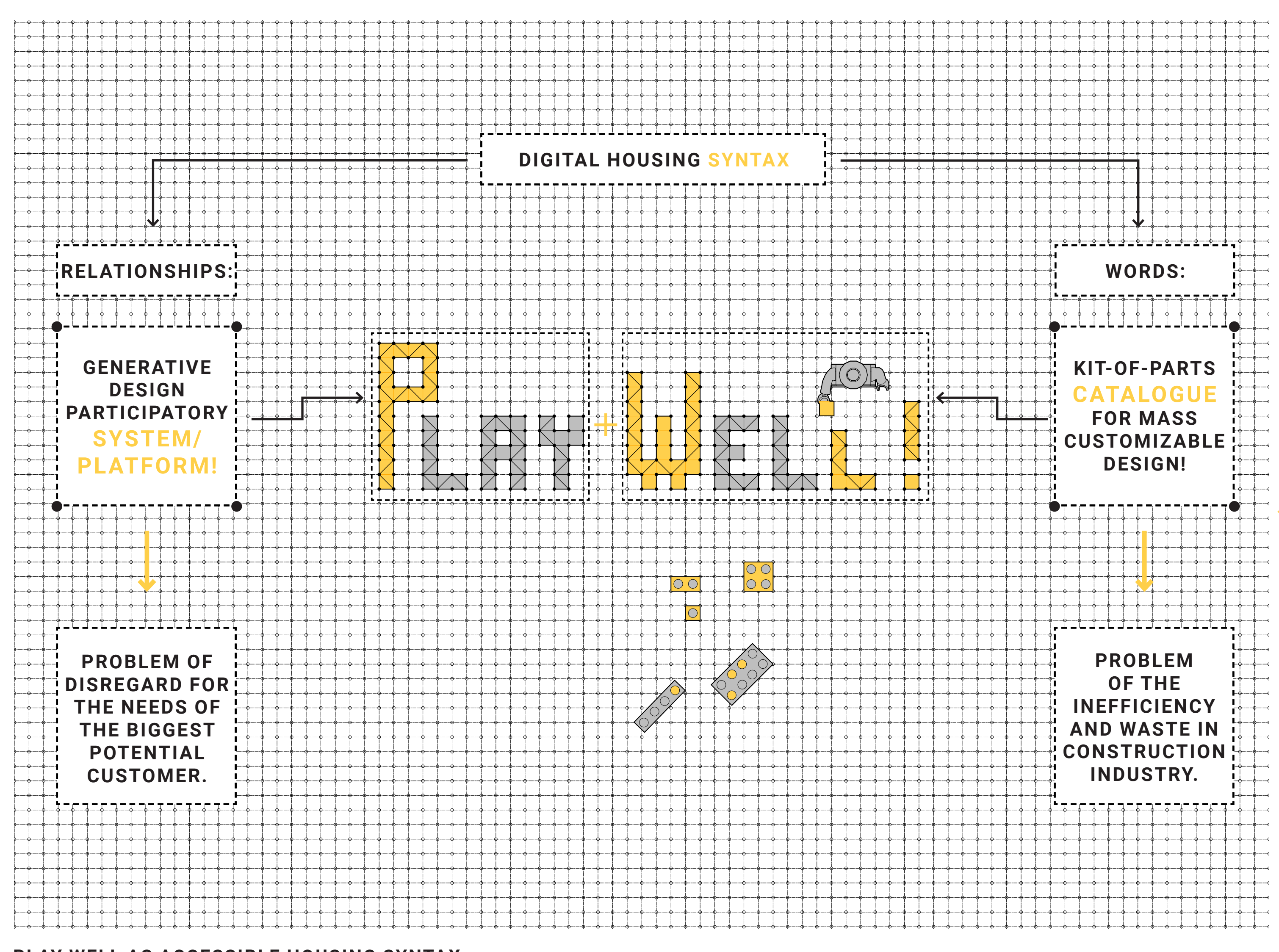


**PROBLEM AND POTENTIAL MEANS OF SOLVING:**

<p><b>GENERIC   DEHUMANIZING</b> 35% OF EU CITIZENS DON'T FEEL ATTACHED TO THEIR LIVING SPACE!</p>	<p><b>WASTEFUL   RESOURCE INTENSIVE.</b> 40% OF ENERGY CONSUMPTION AND 36% OF CO2 EMISSIONS IN THE EU!</p>	<p><b>GAMIFICATION OF DESIGN</b> ALLOWING FOR HANDS ON STAKEHOLDER PARTICIPATION AND INVOLVEMENT IN DECISION MAKING.</p>	<p><b>COMPUTATION IN DESIGN PROCESSES</b> ALLOWING FOR OPTIMIZED SUSTAINABLE DESIGN SOLUTIONS AND OBJECTIVE WAYS OF ASSESSING DESIGN OPTIONS.</p>																		
<p><b>UNATTAINABLE   UNAFFORDABLE</b> IN EU 20.8% OF INCOME WAS DEDICATED TO HOUSING COSTS. RENT PRICES INCREASED BY 15% BETWEEN 2010 AND 2019!</p> <table border="1"> <tr><td>Unaffordable rental housing</td><td>19</td></tr> <tr><td>Insufficient social housing stock</td><td>15</td></tr> <tr><td>Increase of housing cost overburden</td><td>15</td></tr> <tr><td>Concentration of vulnerable groups</td><td>14</td></tr> <tr><td>Increase of short term</td><td>10</td></tr> <tr><td>Unaffordable small home ownership</td><td>7</td></tr> <tr><td>Decline in investment on social infrastructure</td><td>5</td></tr> <tr><td>Increasing number of evictions</td><td>4</td></tr> <tr><td>Data collection</td><td>3</td></tr> </table>	Unaffordable rental housing	19	Insufficient social housing stock	15	Increase of housing cost overburden	15	Concentration of vulnerable groups	14	Increase of short term	10	Unaffordable small home ownership	7	Decline in investment on social infrastructure	5	Increasing number of evictions	4	Data collection	3	<p><b>LOW ON-SITE CONSTRUCTION QUALITY</b> 98% OF UK NEW HOME OCCUPANTS REPORT DEFECT OF SOME KIND!</p>	<p><b>MODULARIZATION &amp; DISCRETENESS</b> ALLOWING FOR LOW COST MANUFACTURING STANDARDIZATION, WHILST ENABLING CUSTOMIZATION THROUGH CONFIGURABILITY.</p>	<p><b>PREFABRICATION</b> ALLOWING FOR HIGH PRECISION MANUFACTURING, PRE-MOUNTING TESTING AND EASE OF DISASSEMBLY.</p>
Unaffordable rental housing	19																				
Insufficient social housing stock	15																				
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<p><b>PROBLEM OF DISREGARD FOR THE NEEDS OF THE BIGGEST POTENTIAL CUSTOMER OF ARCHITECTURE. I.E THE MASSES.</b></p>	<p><b>PROBLEM OF THE INEFFICIENCY AND WASTE IN CONSTRUCTION INDUSTRY.</b></p>	<p><b>PROBLEM OF DISREGARD FOR THE NEEDS OF THE BIGGEST POTENTIAL CUSTOMER OF ARCHITECTURE. I.E THE MASSES.</b></p>	<p><b>PROBLEM OF THE INEFFICIENCY AND WASTE IN CONSTRUCTION INDUSTRY.</b></p>																		



PLAY WELL AS ACCESSIBLE HOUSING SYNTAX

<p><b>UB</b></p> <p><b>01. URBAN BETA</b> + SPATIAL VOXEL BASED CONFIGURATOR FOR BUILDING CONFIGURATIONS CREATION.</p>	<p><b>nabr</b></p> <p><b>02. NABR</b> + PRODUCTIZED APPROACH TO HOUSING - POSSIBILITY TO SELECT FEATURES.</p>	<p><b>Urban Village</b></p> <p><b>03. URBAN VILLAGE</b> + CATALOGUE OF PRE-CONFIGURED SPACES TO BE UTILIZED WITHIN THE SYSTEM.</p>	<p><b>juno</b></p> <p><b>04. JUNO</b> + CREATED A COMPONENT-BASED DESIGN PROCESS THAT BRINGS PRECISION AND SIMPLICITY. + ENTIRE SYSTEM COMPRISES OF 30 PRE-FABRICATED ELEMENTS.</p>
<p><b>GAMIFICATION</b></p>	<p><b>PRODUCTIZATION</b></p>	<p><b>CATALOGIZATION</b></p>	<p><b>COMPONENTIZATION</b></p>

HOUSING INNOVATORS INFORMING THE APPROACH



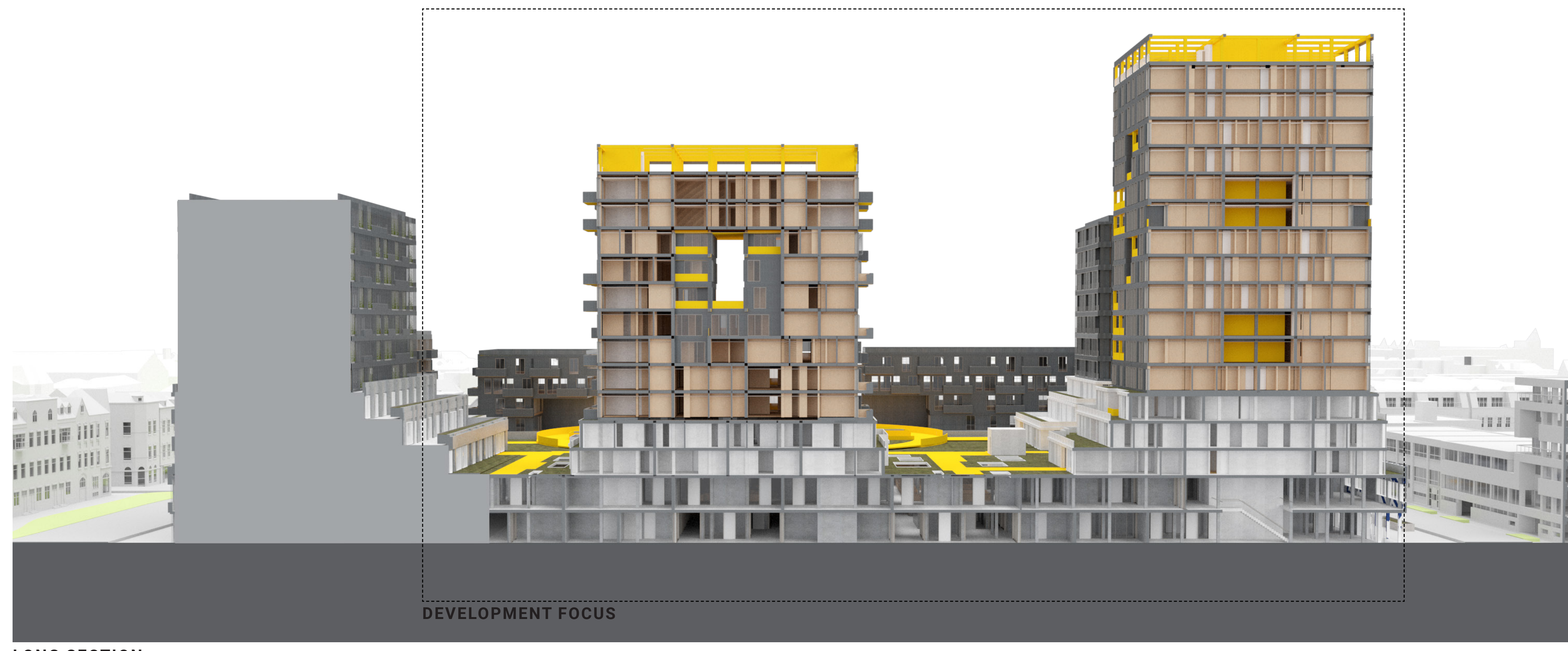




ZOHO MASTERPLAN OVERVIEW:



FRONT S-W ELEVATION



LONG SECTION



SIDE S-E ELEVATION



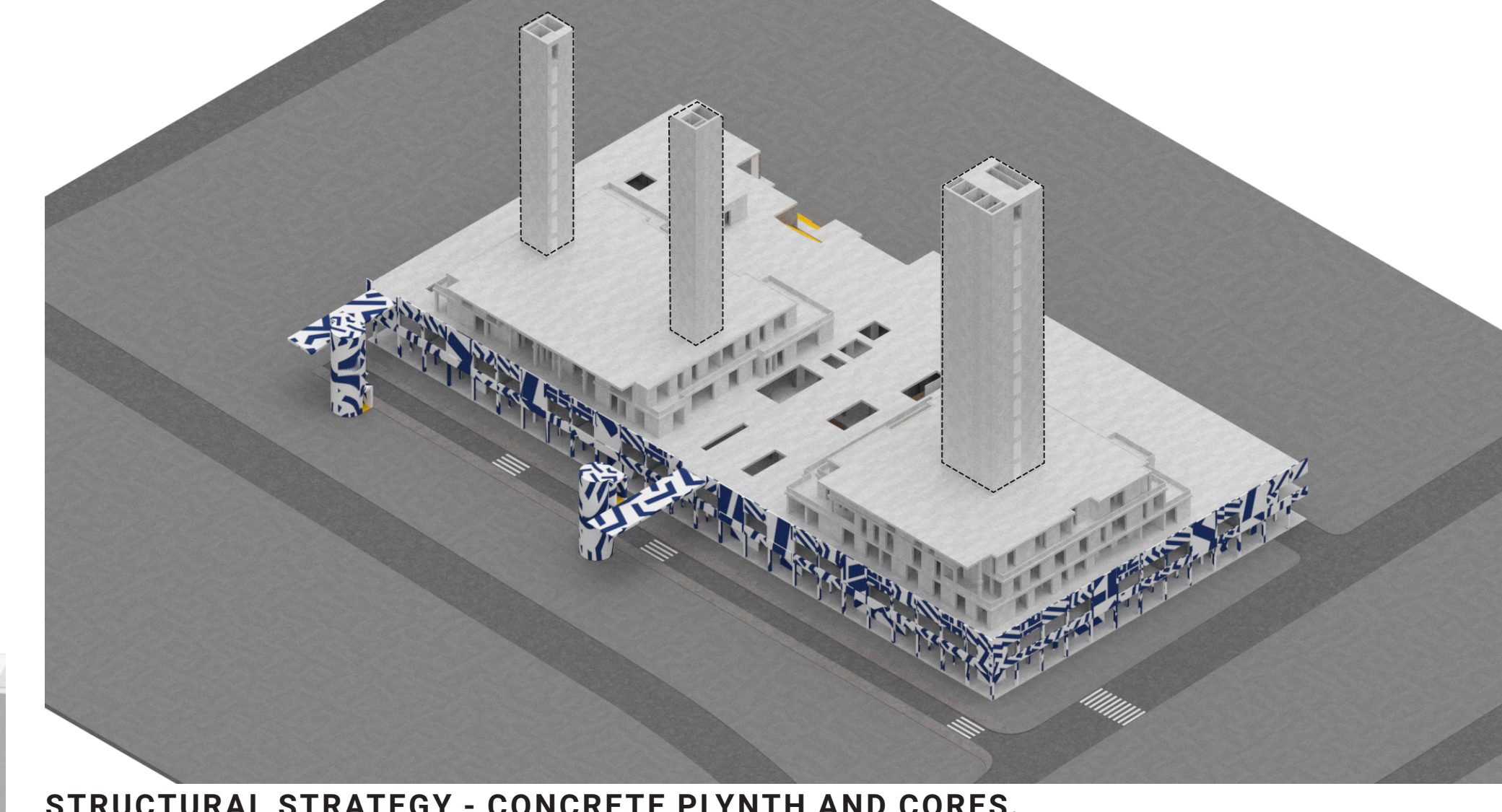
CROSS SECTION



01. ACTIVE LIVING



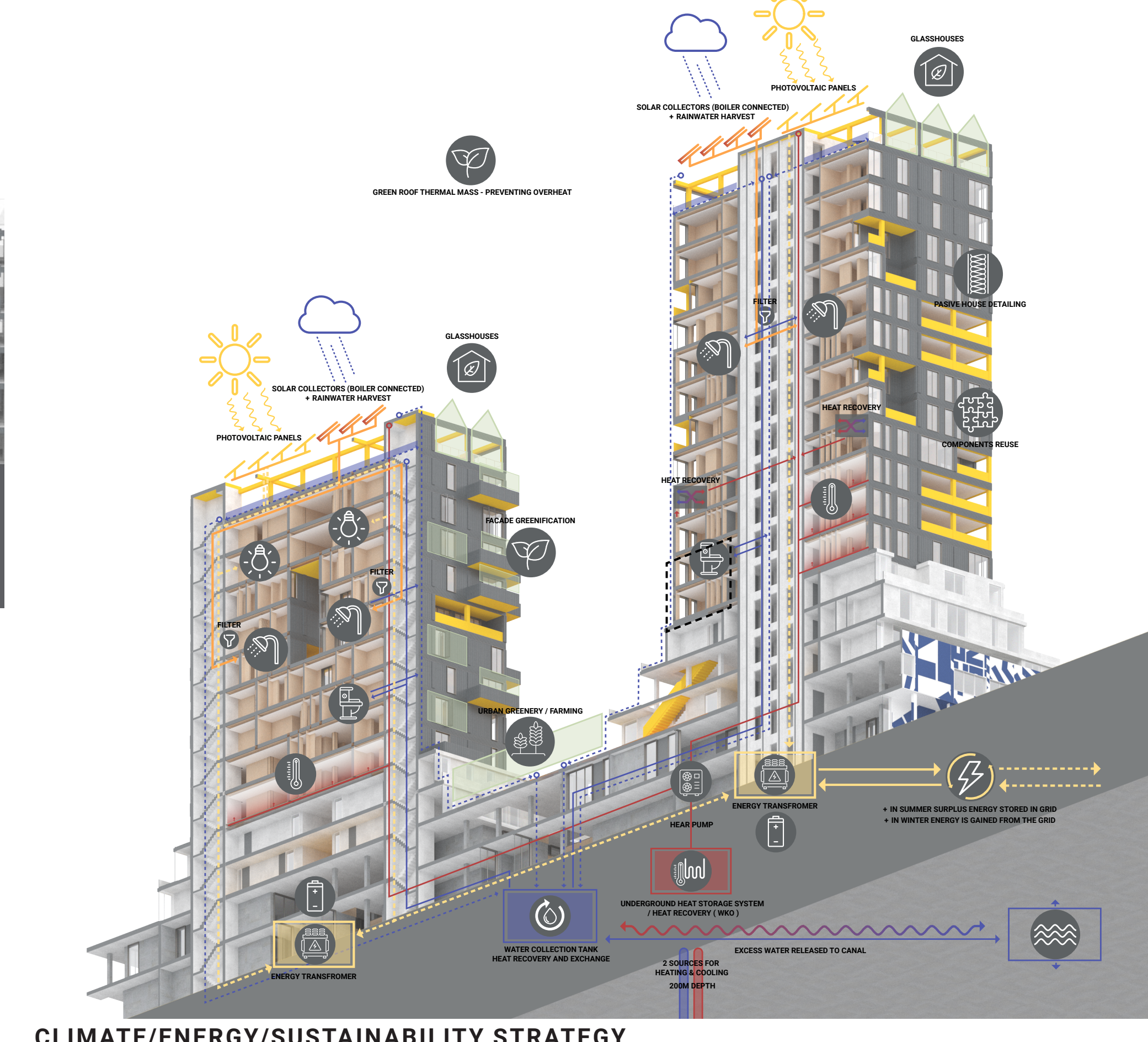
02. PARK LIVING



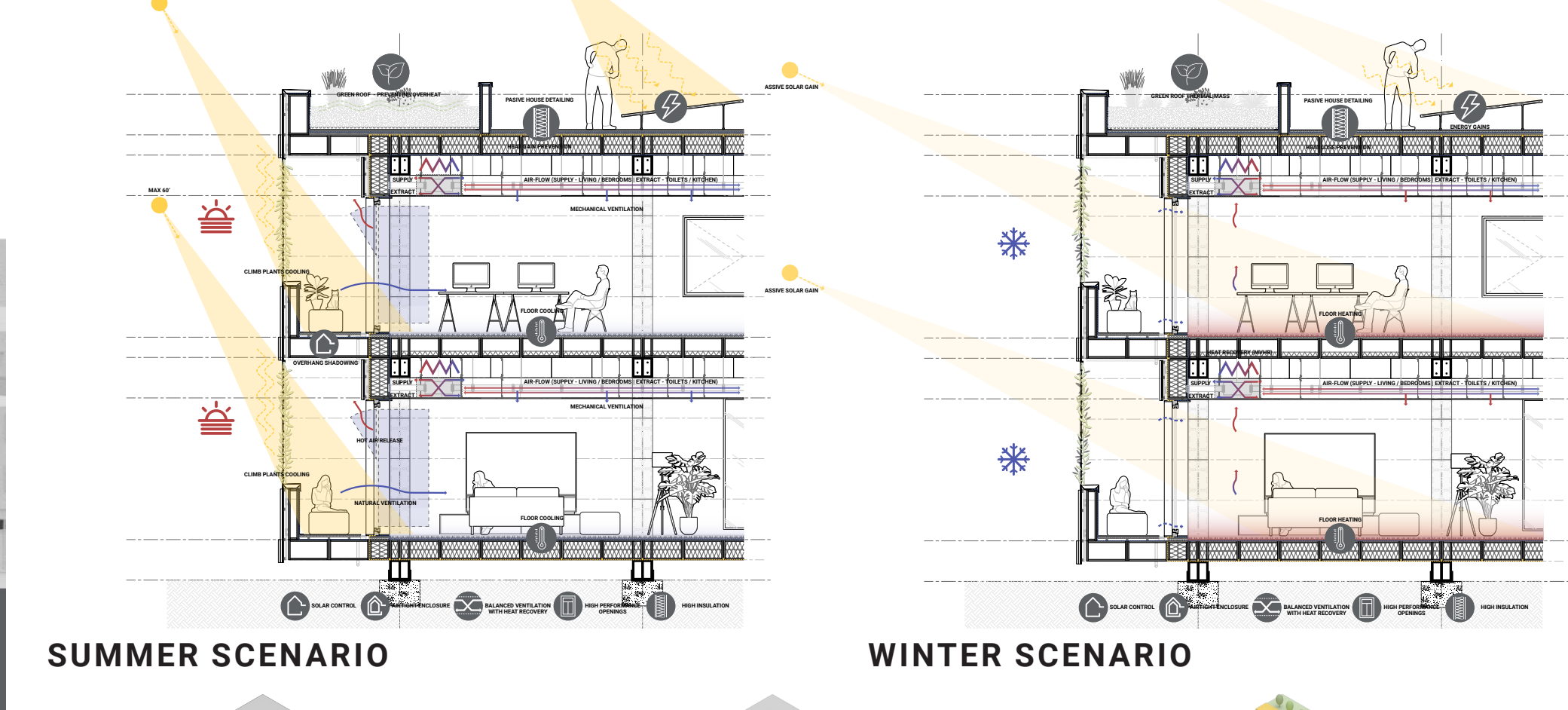
STRUCTURAL STRATEGY - CONCRETE PLYNTH AND CORES.



STRUCTURAL STRATEGY - STRUCTURAL TIMBER GRID.

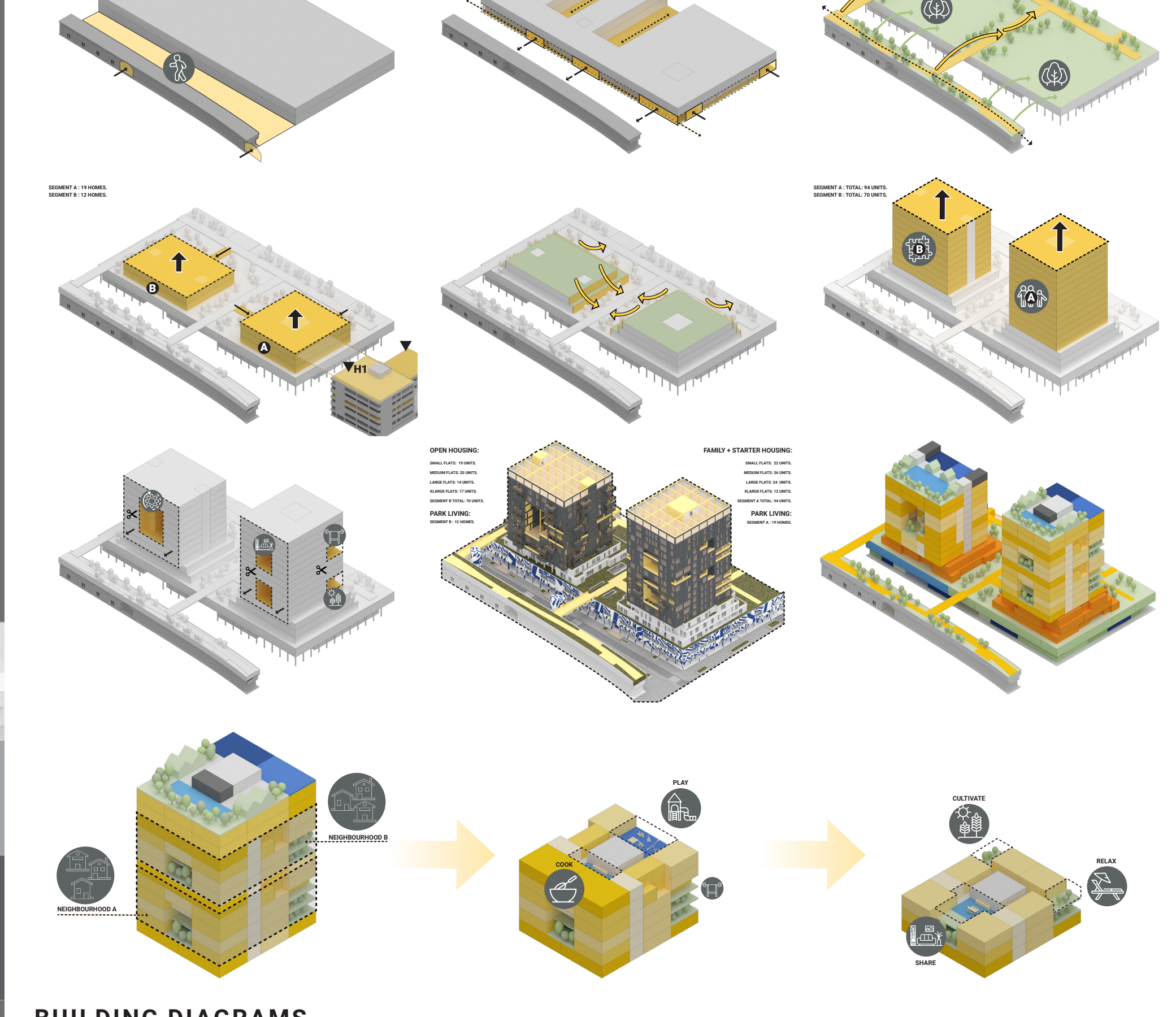


CLIMATE/ENERGY/SUSTAINABILITY STRATEGY



SUMMER SCENARIO

WINTER SCENARIO



BUILDING DIAGRAMS



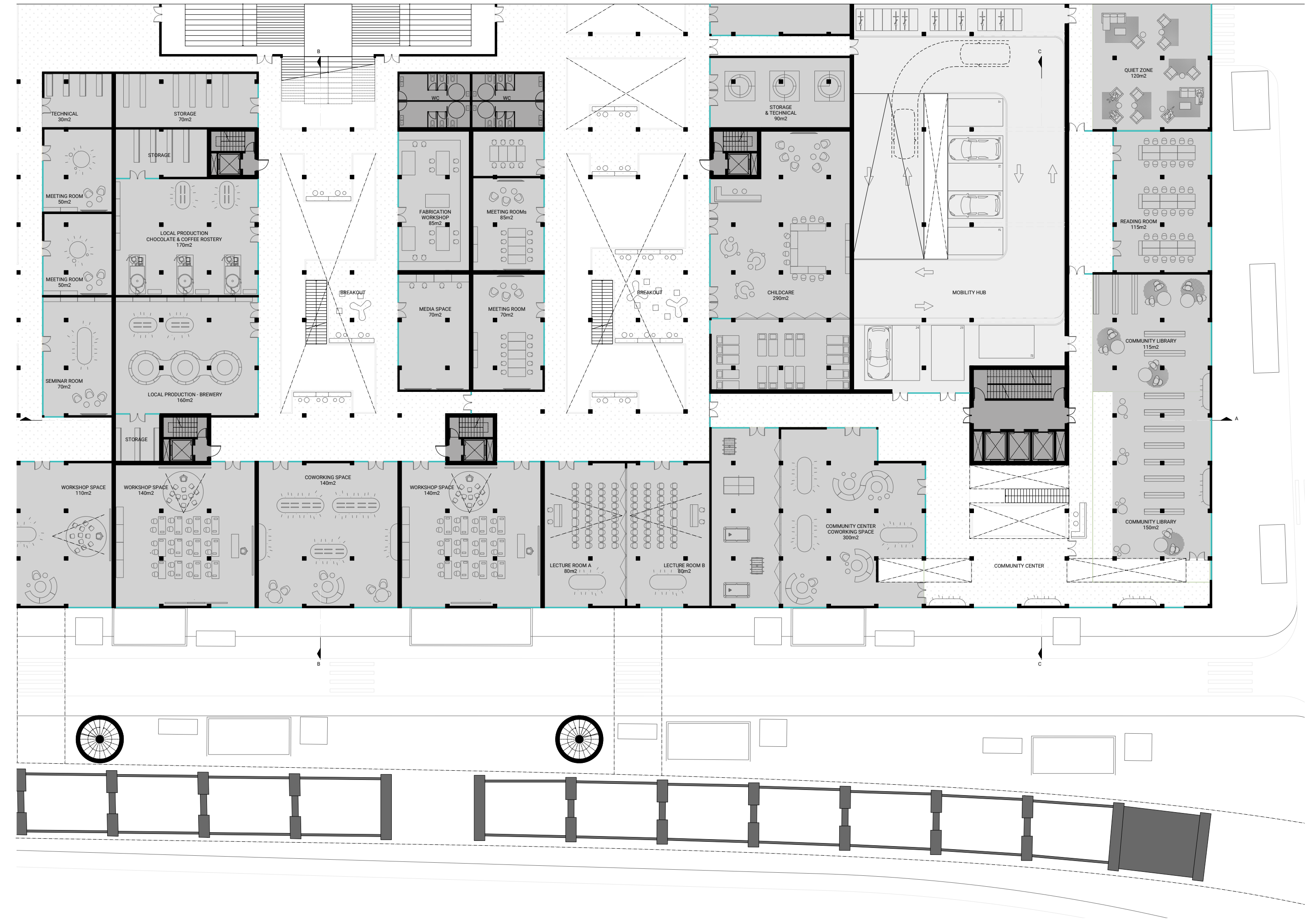
03. COMMUNAL/MODULAR LIVING



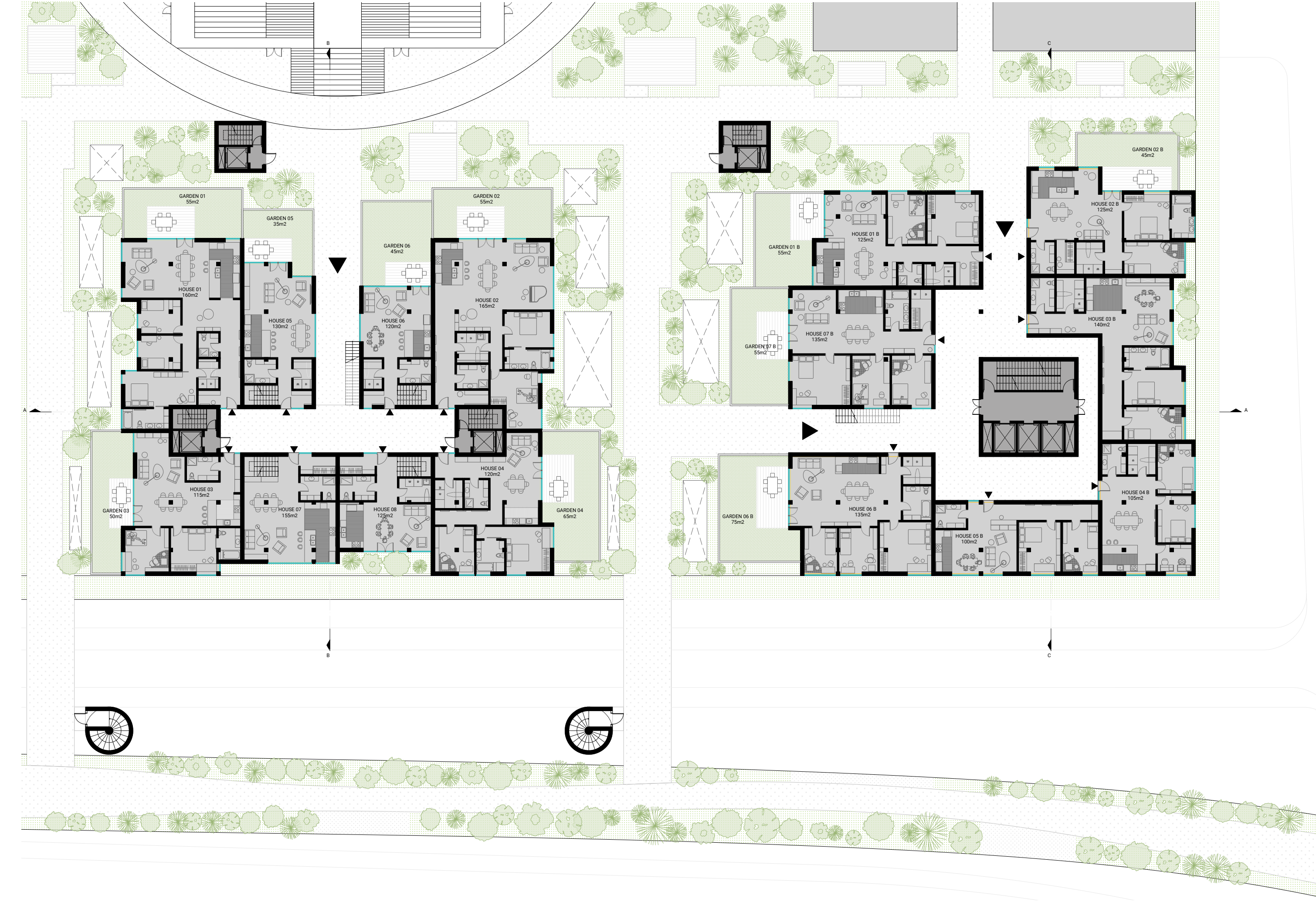
ZOHO MASTERPLAN OVERVIEW:



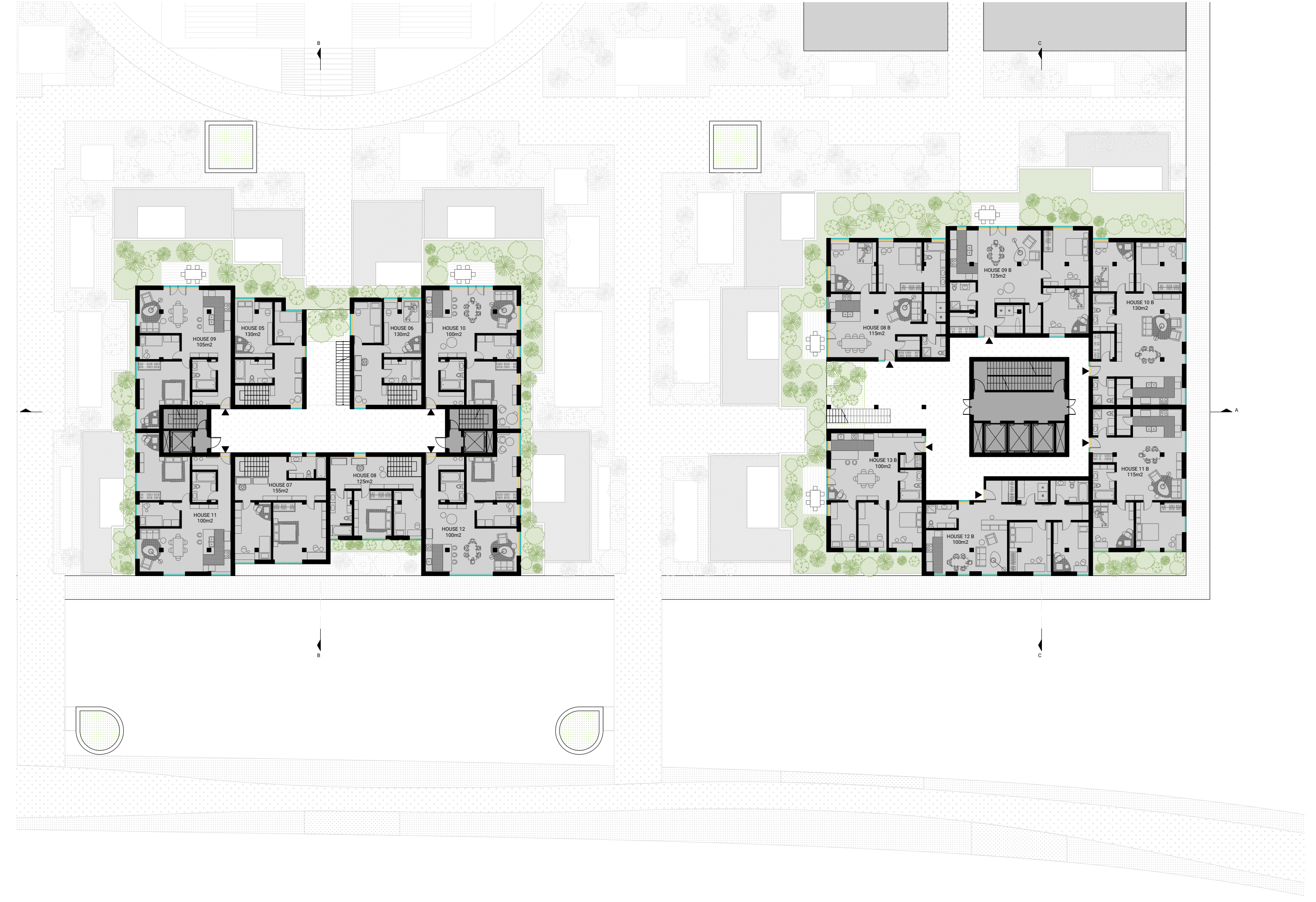
01. PUBLIC FOUNDATION - ACTIVE LIVING - GROUND FLOOR @ 1:300



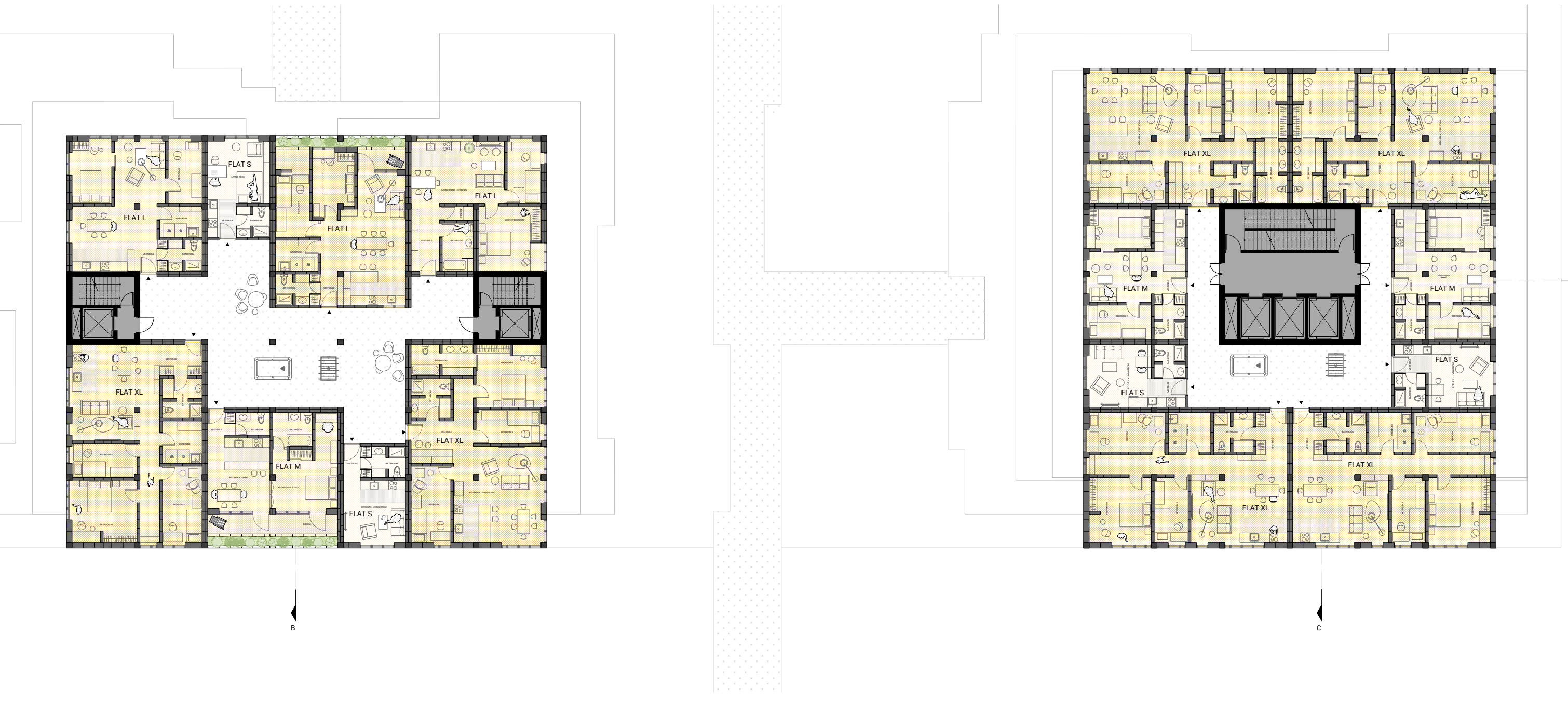
02. PUBLIC FOUNDATION - ACTIVE LIVING - FIRST FLOOR @ 1:300



03. PARK LIVING NEIGHBORHOOD - LVL 2 @ 1:300



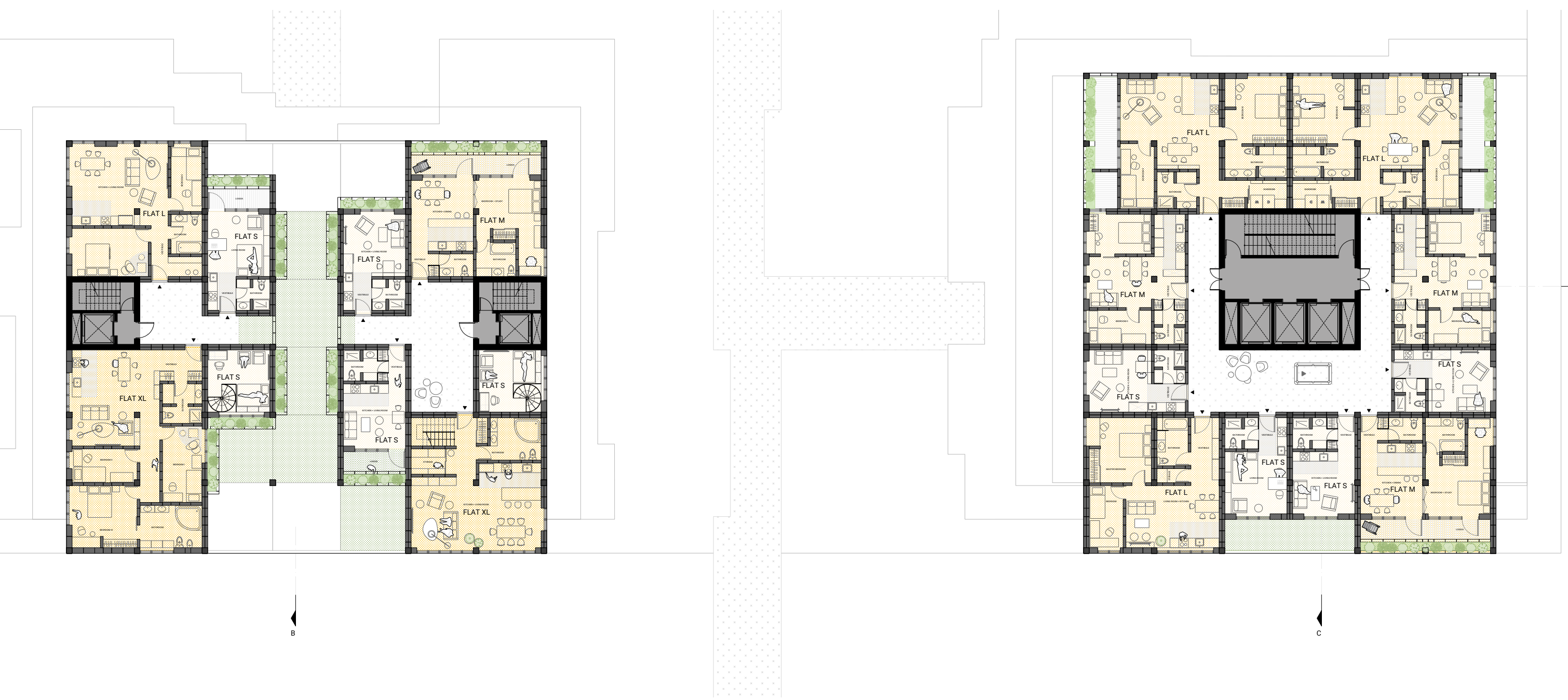
04. PARK LIVING NEIGHBORHOOD - LVL 3 @ 1:300



05. MODULAR LIVING - LVL 5 @ 1:250



06. MODULAR LIVING - LVL 6 @ 1:250



07. MODULAR LIVING - LVL 9 @ 1:250



08. MODULAR LIVING - LVL 10 @ 1:250



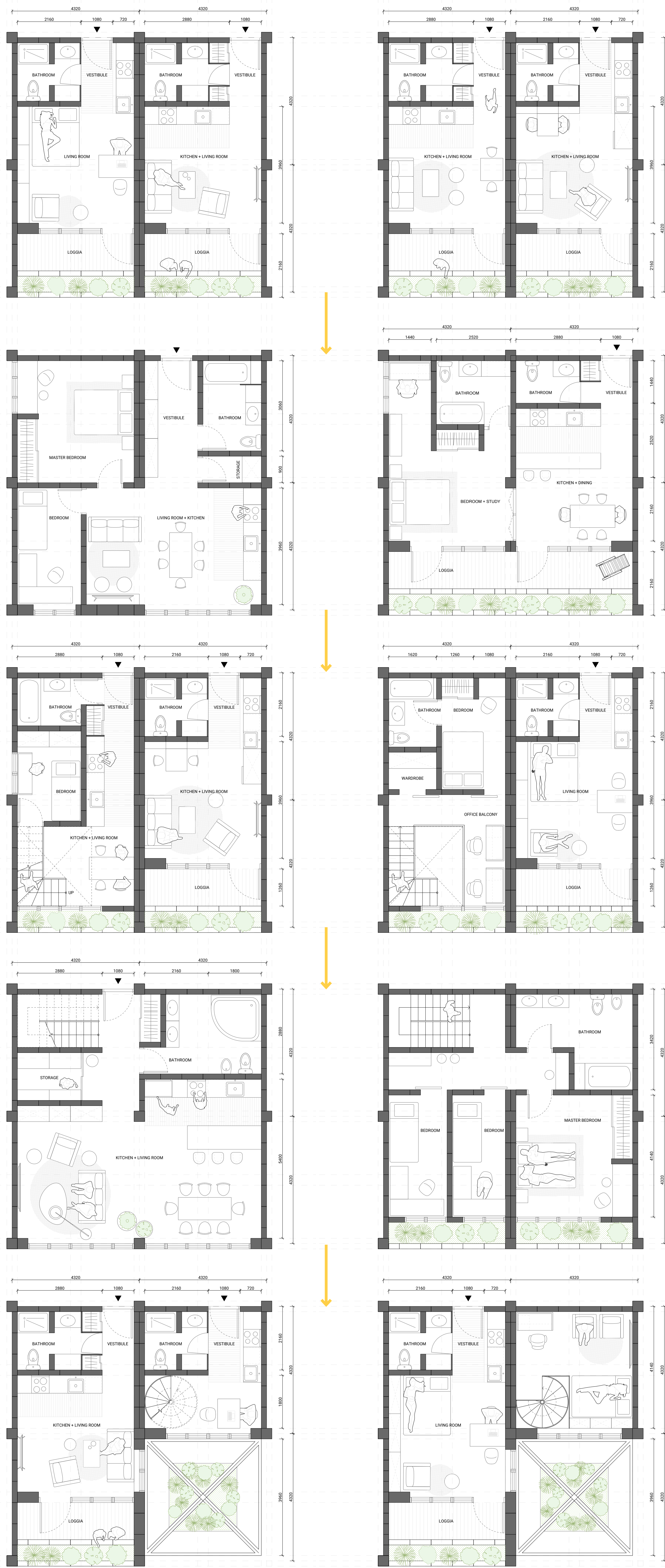
09. MODULAR LIVING - LVL 13 @ 1:250



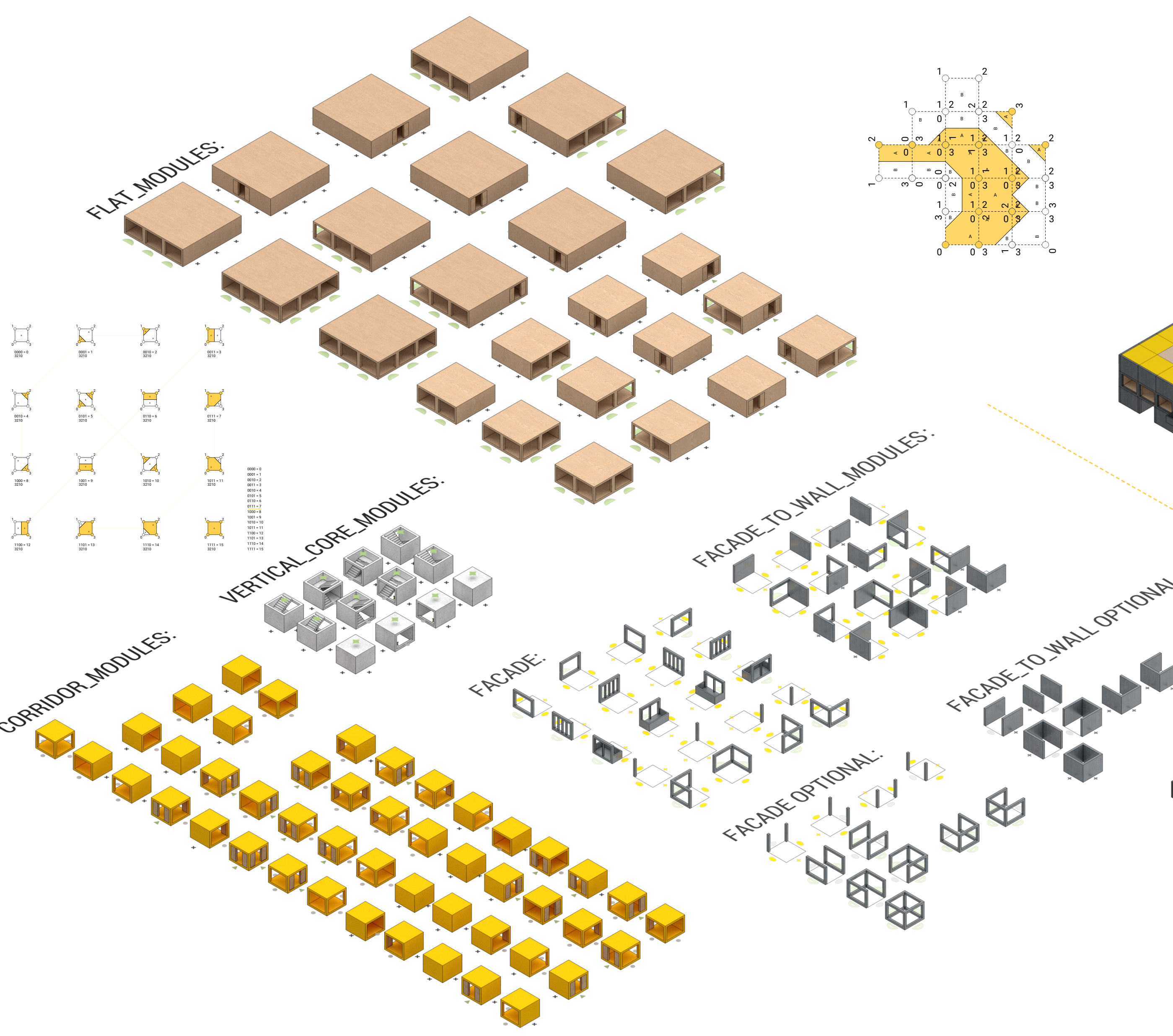
10. MODULAR LIVING - LVL 14 @ 1:250



CONFIGURATIVE HOUSING APPROACH:



4 X 4 X 2 VOXELS SEGMENT - EVOLUTION IN TIME @ 1:50



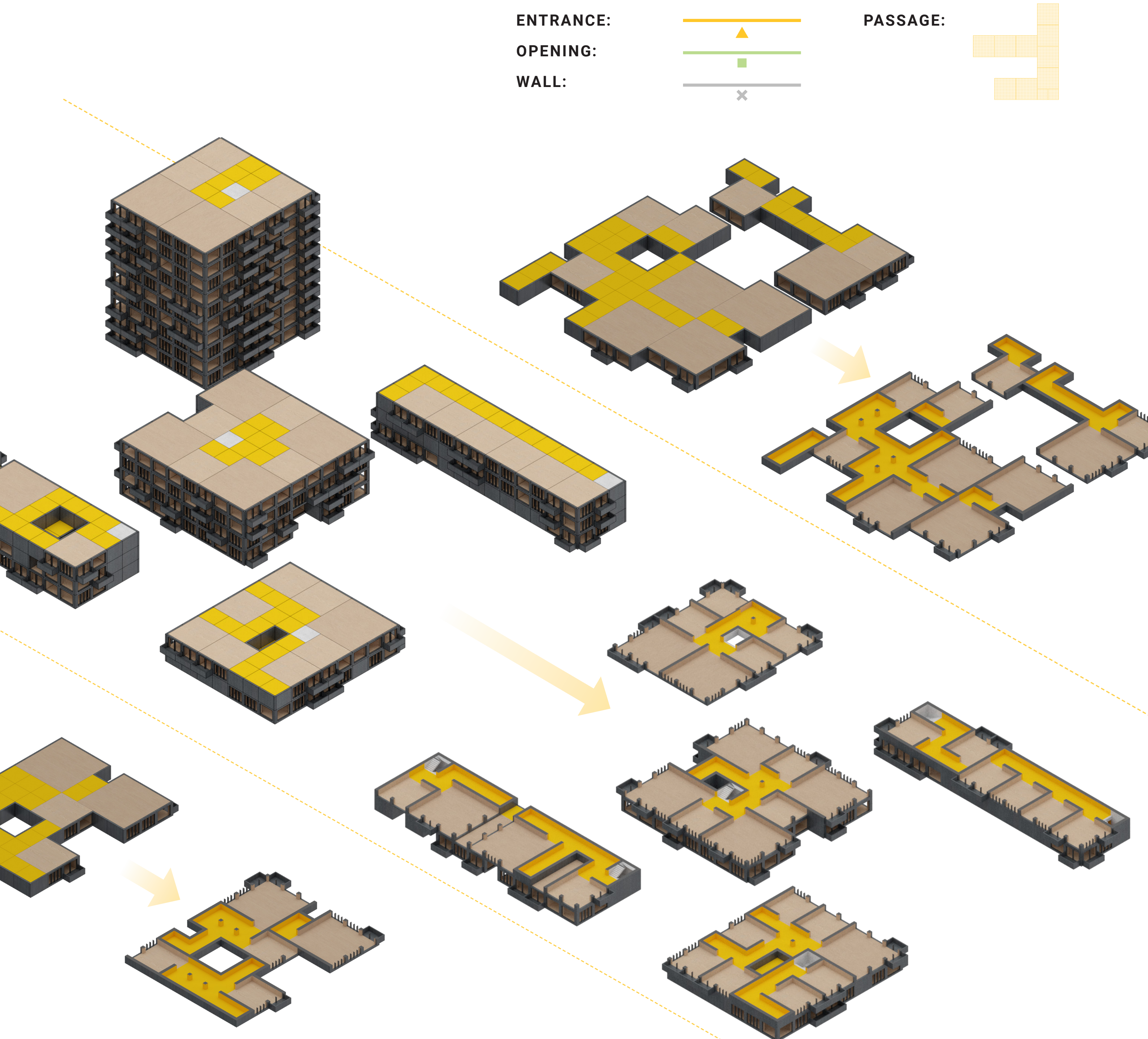
AUTOMATIC CONFIGURATION - COMPUTER PROGRAM - TAGED MODULE TILESET



01. TAGED SMALL FLATS CATALOGUE @ 1:200



02. TAGED MEDIUM FLATS CATALOGUE @ 1:200

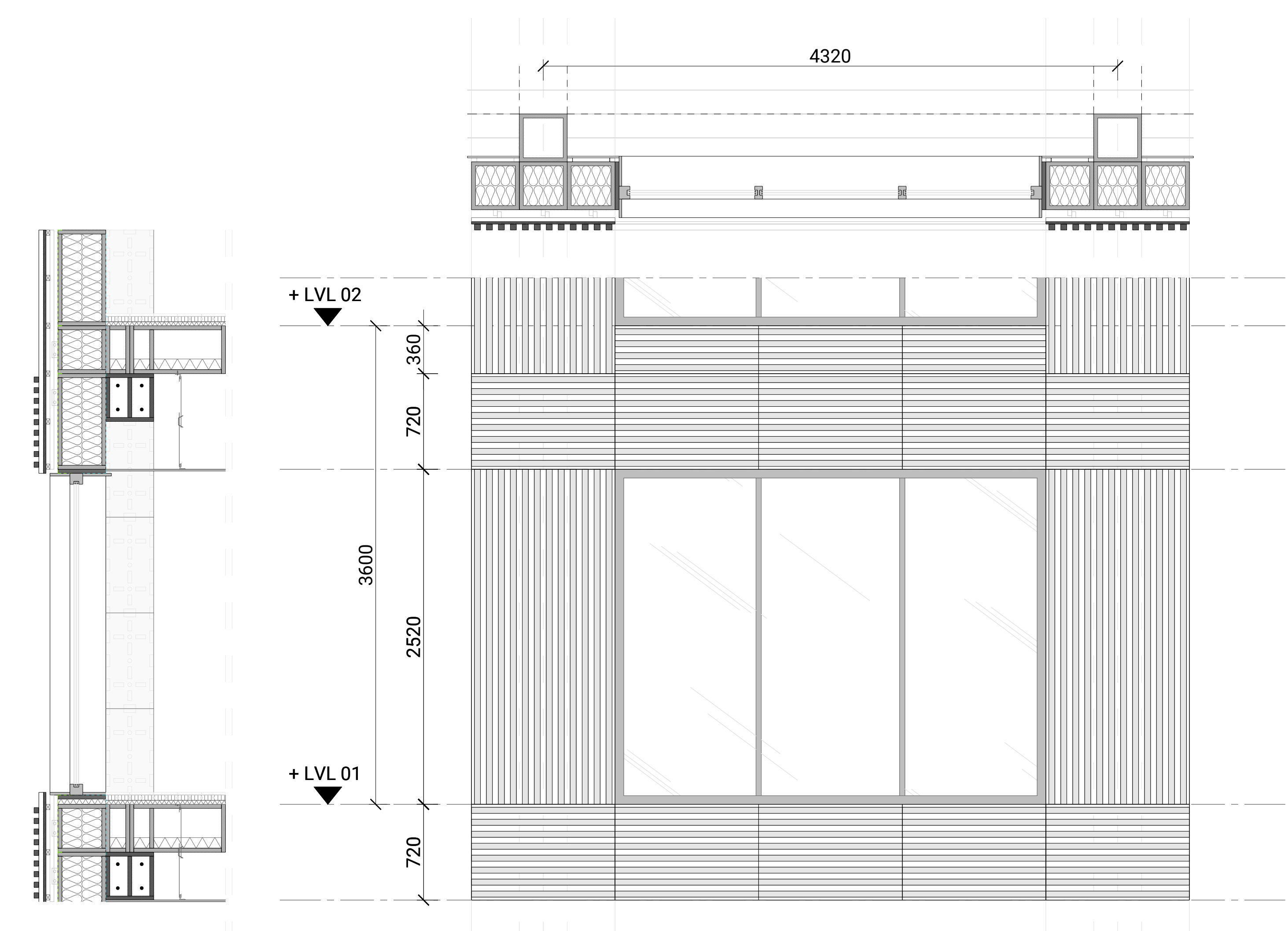


AUTOMATIC CONFIGURATION - COMPUTER PROGRAM - TEST RESULTS

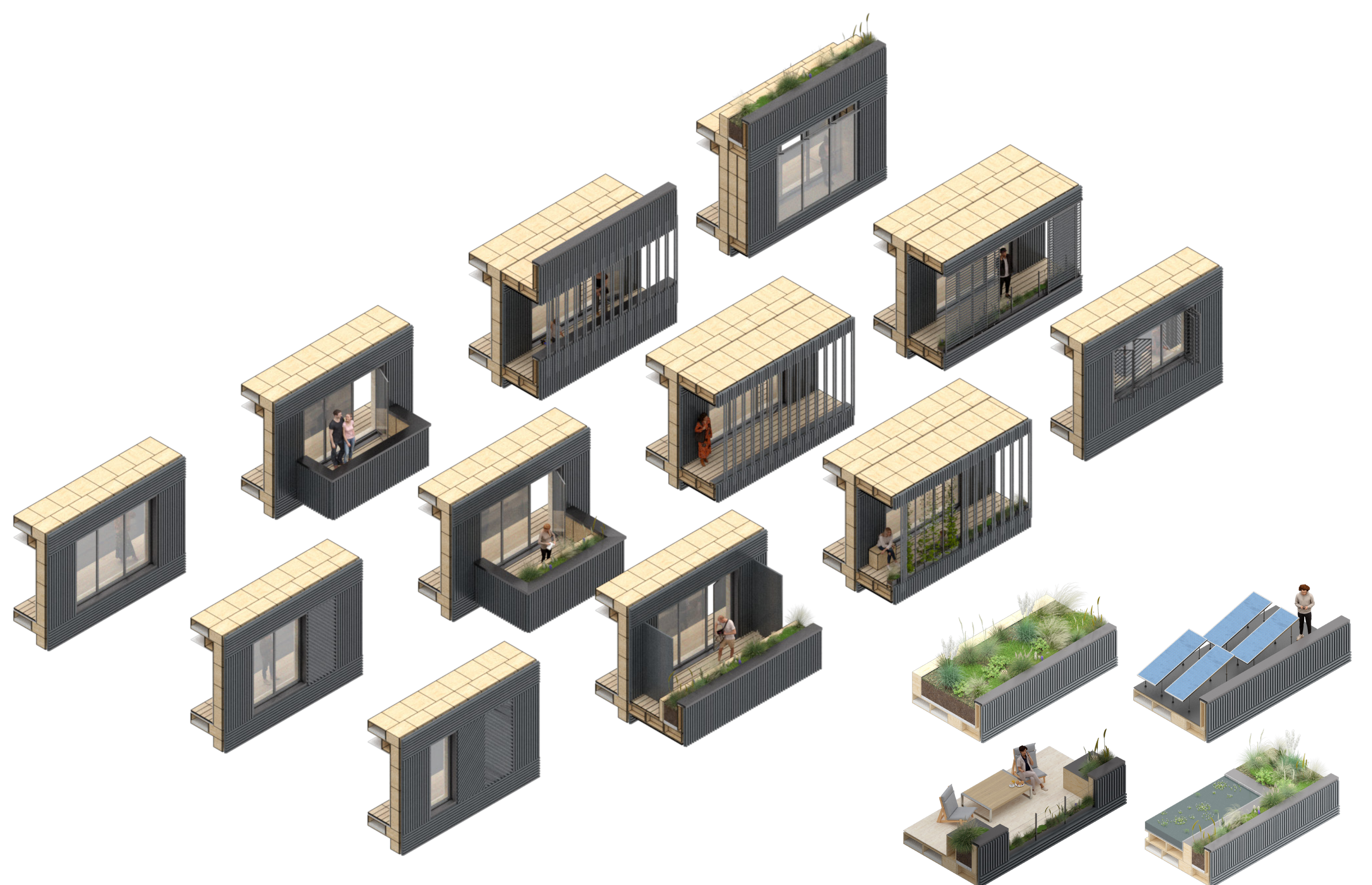




FINISH SYSTEM CATALOGIZATION:



ELEVATION - VERTICAL SECTION - HORIZONTAL SECTION RELATION @ 1:20

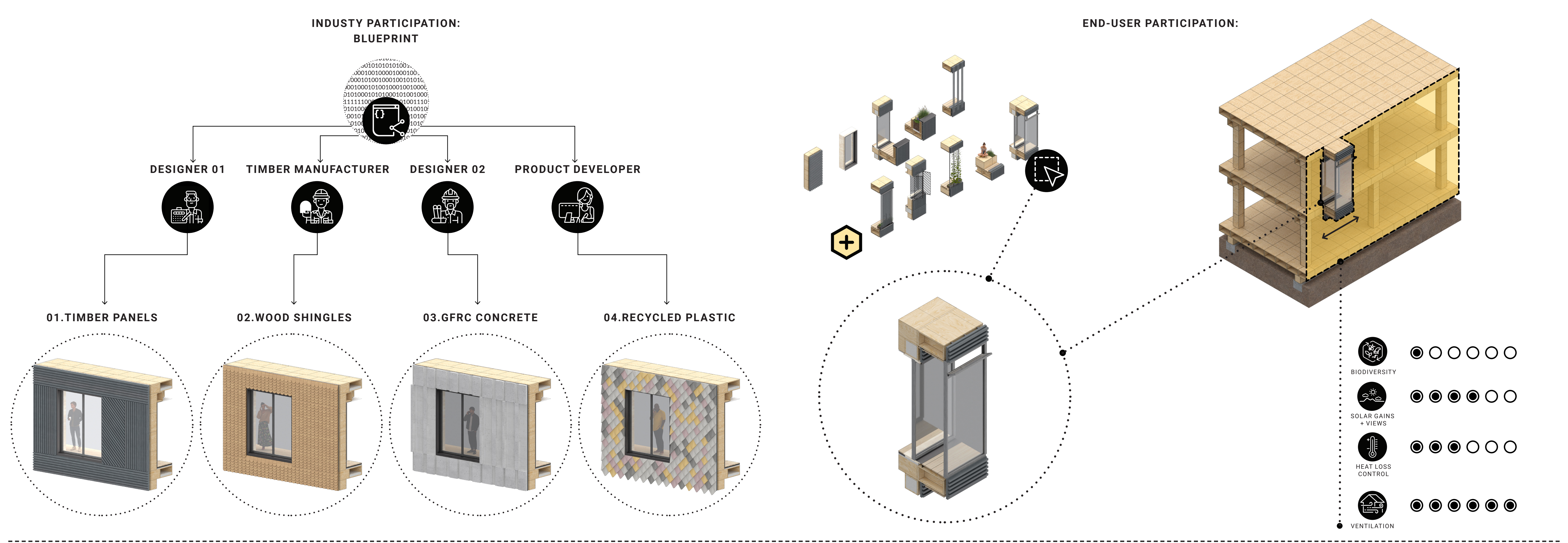


CATALOGUE OF FACADE + ROOFTOP SOLUTIONS

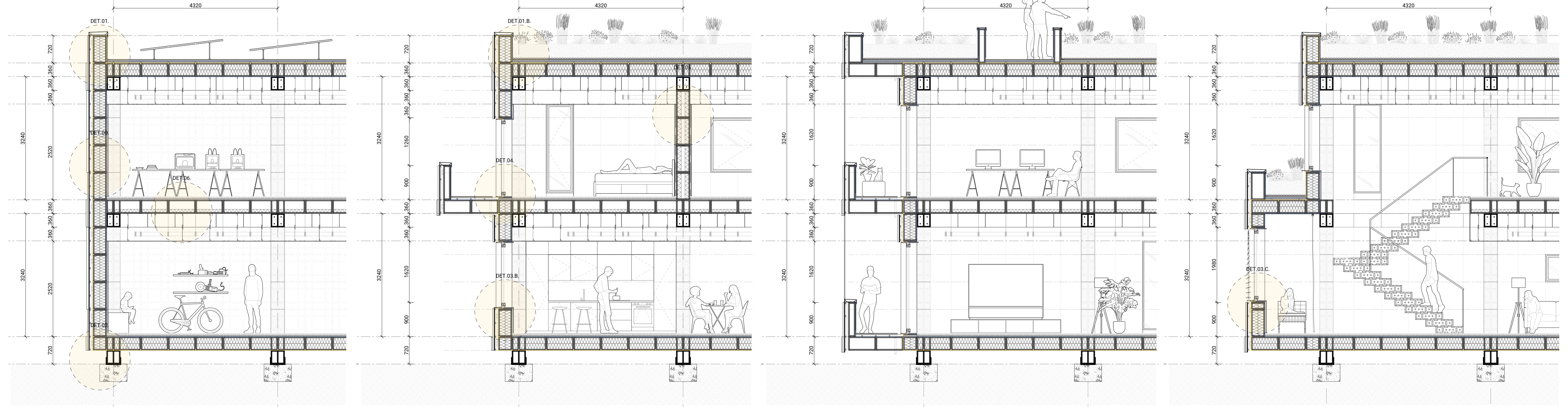


BUDGET DEPENDENT - TIERS OF FINISH

PARTICIPATORY MECHANIZMS:



DEVELOPMENT SCENARIOS & DETAILING:



**SECTION 01 @ 1:50 - ENCLOSED WALL + PV PANELS ROOF**  
**KEY OUTTAKES/PARAMETERS:**  
 + EXTERNAL BARRIERS WITH 0.15 U VALUES  
 + POSSIBILITY OF AIRTIGHTNESS AT 1.5ACH  
 + SERVICES LAYER PROVISION  
 + ACOUSTIC COMFORT AND TIGHTNESS

**SECTION 02 @ 1:50 - BALCONY/WINDOW + GREEN ROOF**  
**KEY OUTTAKES/PARAMETERS:**  
 + GREENIFICATION OF THE ROOF  
 + WATER CLEARANCE FROM LOGGIAS/BALCONIES  
 + 3GLAZING WINDOW INTEGRATION  
 + ACOUSTIC COMFORT FOR KEY ROOMS

**SECTION 03 @ 1:50 - LOGGIA WITH SHADERS + ACCESSIBLE ROOF**  
**KEY OUTTAKES/PARAMETERS:**  
 + INTEGRATION OF ROOF ACCESS  
 + INTEGRATION OF SHADED LOGGIAS WITH GREEN TRELLIS  
 + LOGGIAS OVERHANG FOR SOUTH FACADE APPLICATIONS  
 + VARIABLE INTERNAL FINISH

**SECTION 04 @ 1:50 - DORMER WINDOW + GREEN PLANTERS**  
**KEY OUTTAKES/PARAMETERS:**  
 + HEAT BUBBLE DORMER WINDOW  
 + INTERNAL STAIRCASE SYSTEM INTEGRATION  
 + GREENIFICATION WITH PLANTERS INTEGRATION  
 + VARIABLE INTERNAL FINISH



**BENEFITS OF USE:**

**FOR SOCIETY:**

**FOR ARCHITECTS:**

**01. AFFORDABLE**

- + THE EFFECTS OF SCALE AND MASS PRODUCTION ALLOW FOR PRICE REDUCTION.

**02. SUSTAINABLE**

- + STRUCTURAL TIMBER AS THE MAIN MATERIAL UTILIZED IS A CARBON SINK.
- + THE DEMOUNTABILITY ALLOWS FOR RECYCLABILITY OF RESOURCES.
- + WELL-DETAILED TO THE LEVELS OF PASSIVE HOUSE - ENSURES ENERGY EFFICIENCY.
- + MINIMIZING WASTE.

**03. EASY TO MAINTAIN**

- + DEMOUNTABILITY OF ELEMENTS - DRY MOUNTING BASED CONNECTIONS ALLOW FOR PARTS REPLACEMENT.

**04. PARTICIPATORY**

- + SIMPLICITY OF THE SYSTEM AND THE CATALOGUE OF PRE-CONFIGURED SPACES ALLOW FOR HANDS ON USER PARTICIPATION.

**01. SYSTEMATIZED**

- + THE SYSTEM OF CONSTRUCTION DEPENDS ON ERGONOMICS AND PROPORTIONS.

**02. OPEN SOURCE - OPEN FOR ADAPTATION**

- + BLUEPRINTS OF DIMENSIONS ARE AVAILABLE OPEN SOURCE AND READY FOR IMPROVEMENTS AND ADAPTATIONS.

**03. PRODUCTIZED**

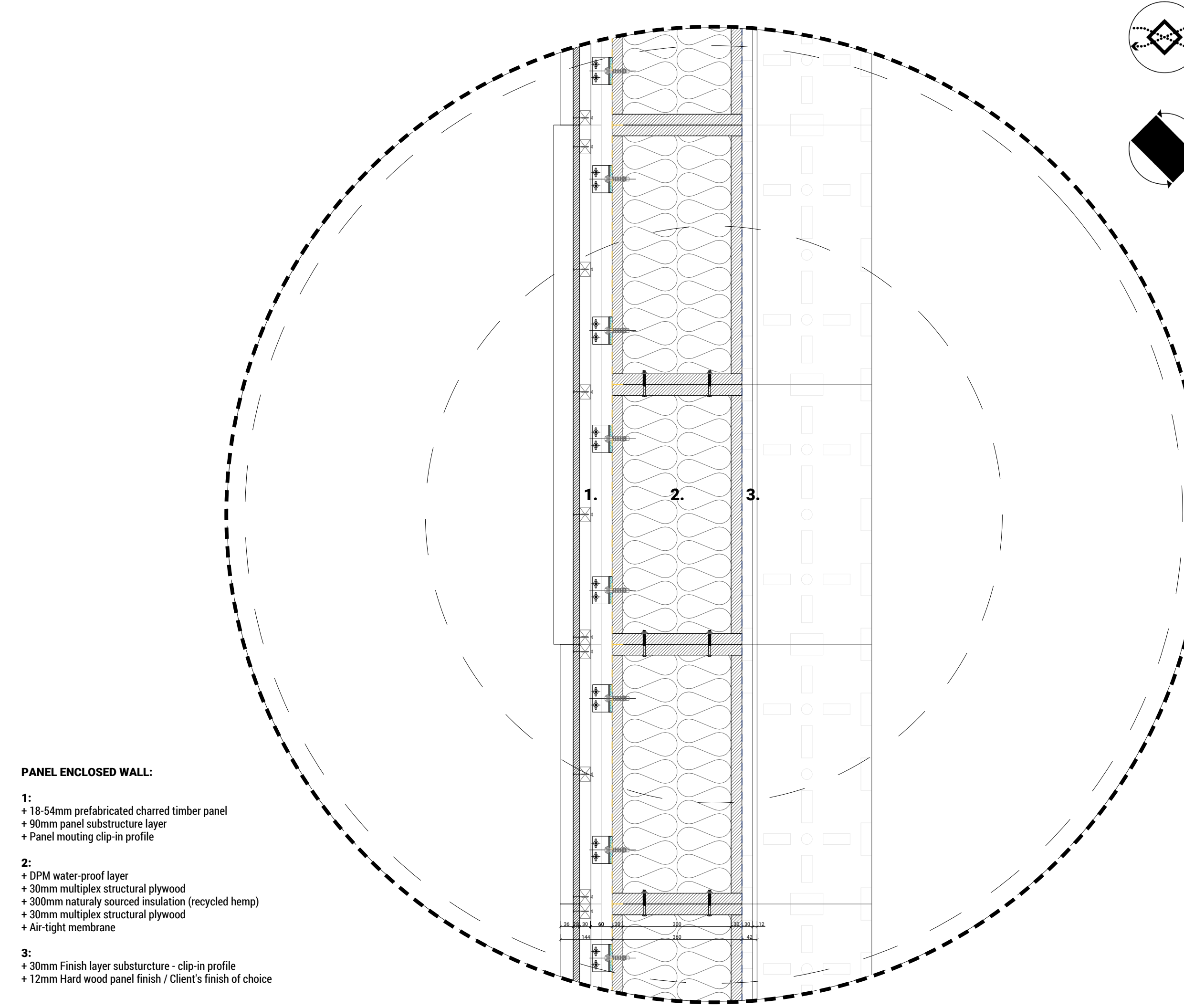
- + THE SYSTEM MINIMIZES THE AMOUNT OF UTILIZED COMPONENTS.
- + IT RELIES ON CATALOGUE OF READILY AVAILABLE SOLUTIONS.

**04. CONFIGURABLE / VERSATILE**

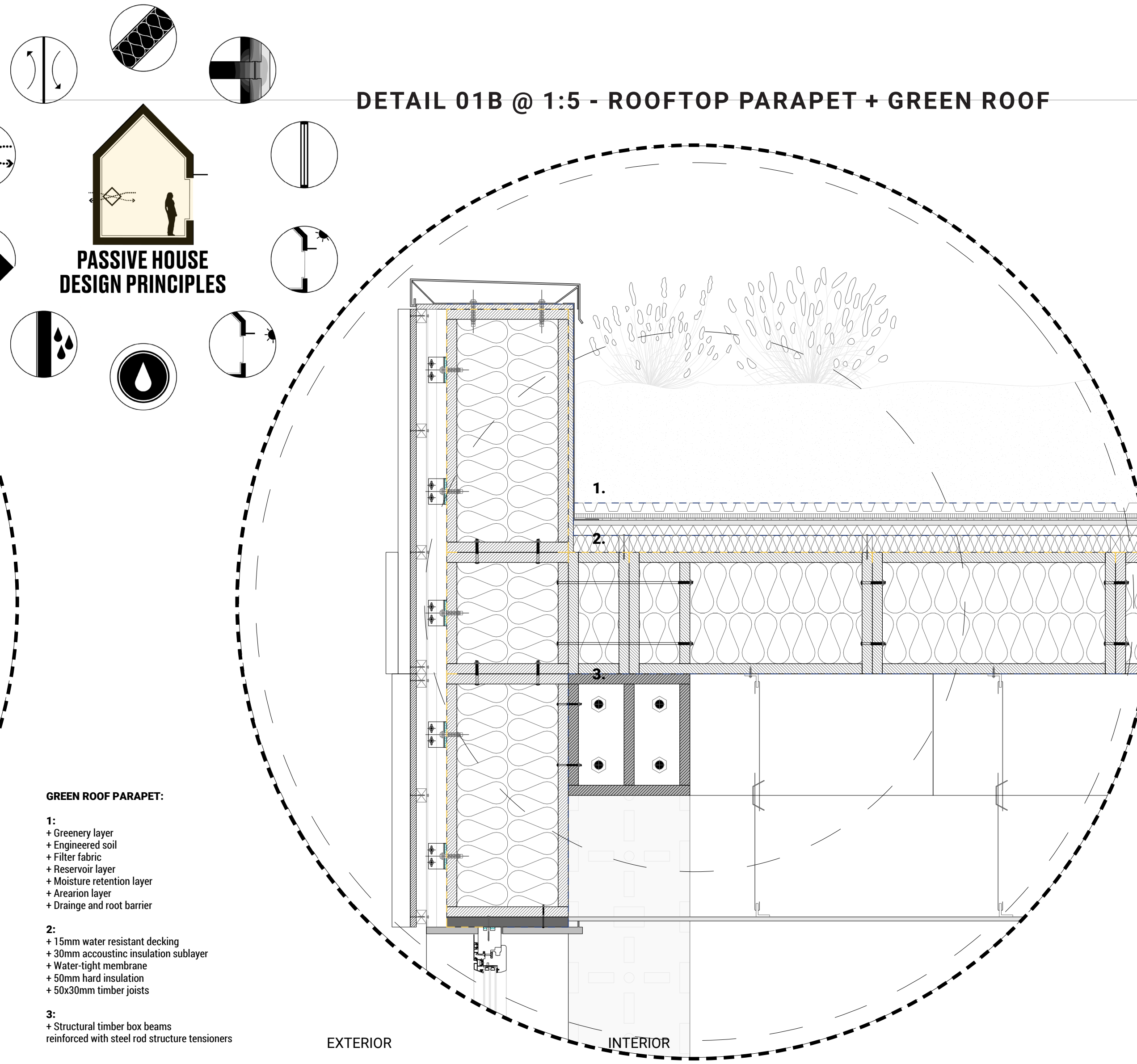
- + THE SYSTEM IS AN OPEN ONE - PROVIDES POSSIBILITIES FOR RE-CONFIGURATION AND CREATIVITY.

**DETAILING AND SYSTEM REFERENCE:**

**DETAIL 00 @ 1:5 - STANDARD WALL ELEMENT**



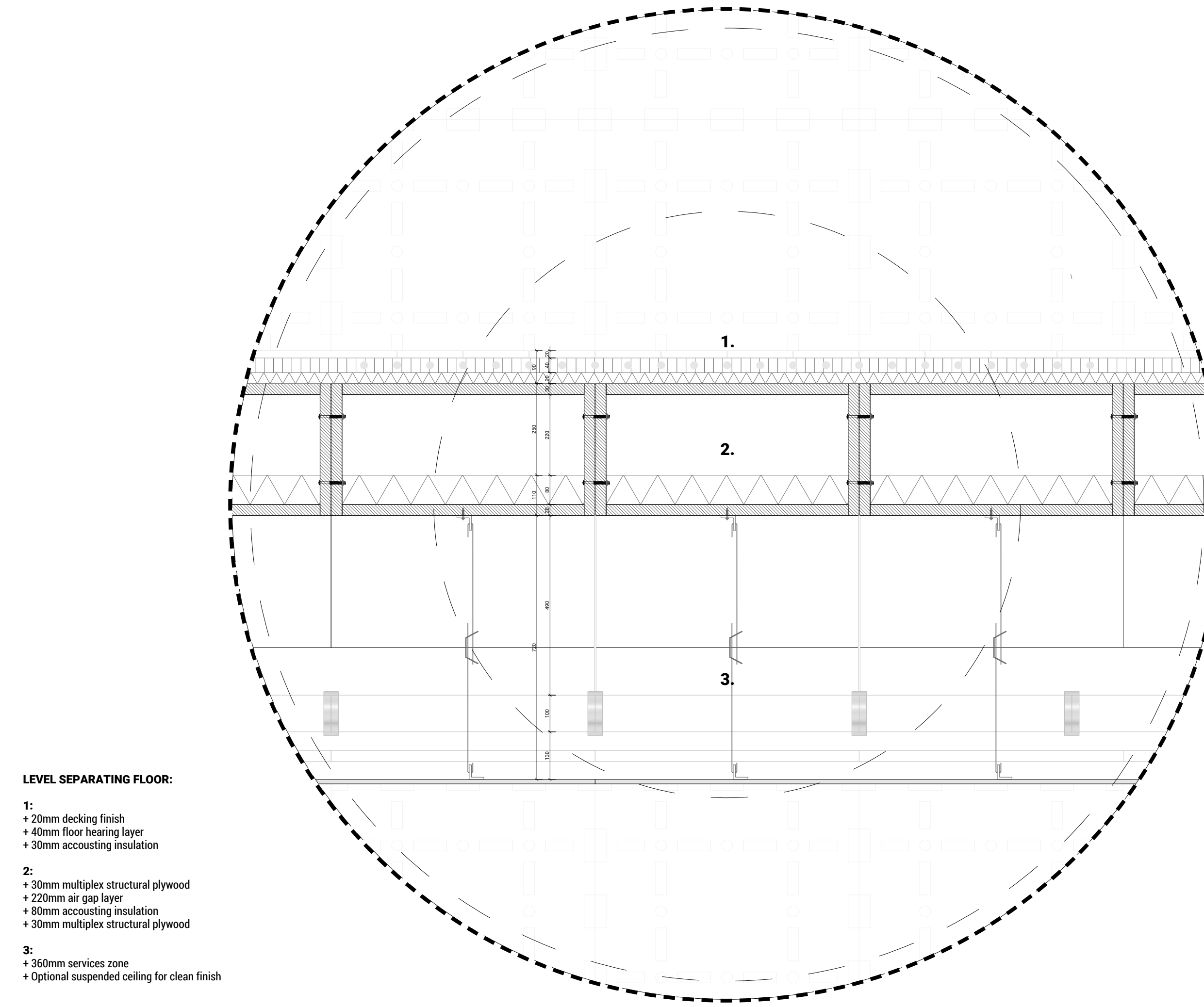
**DETAIL 01B @ 1:5 - ROOFTOP PARAPET + GREEN ROOF**



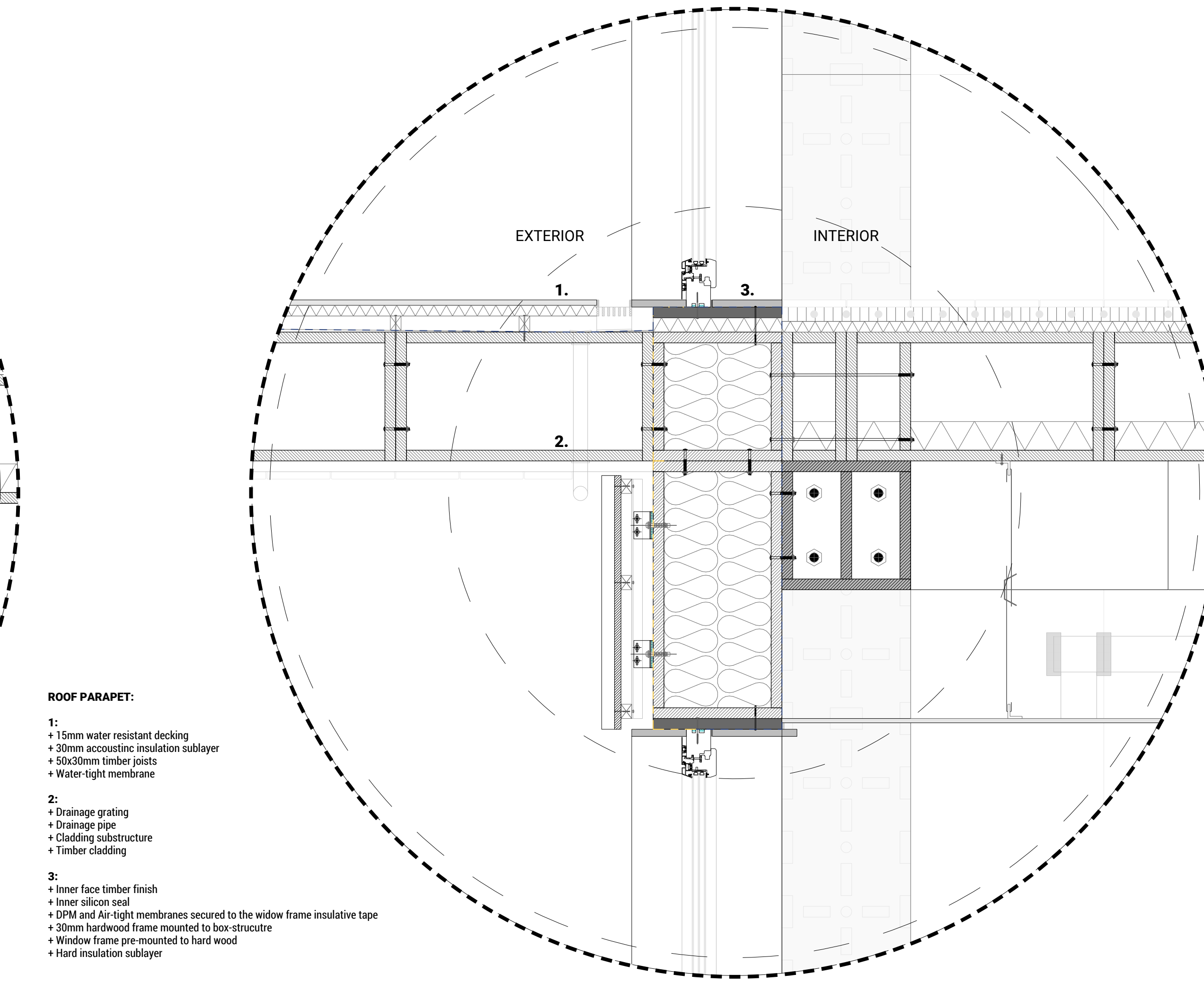
**BlokBuild**



**DETAIL 06 @ 1:5 - FLOOR HEATING + ACOUSTIC INSULATION**



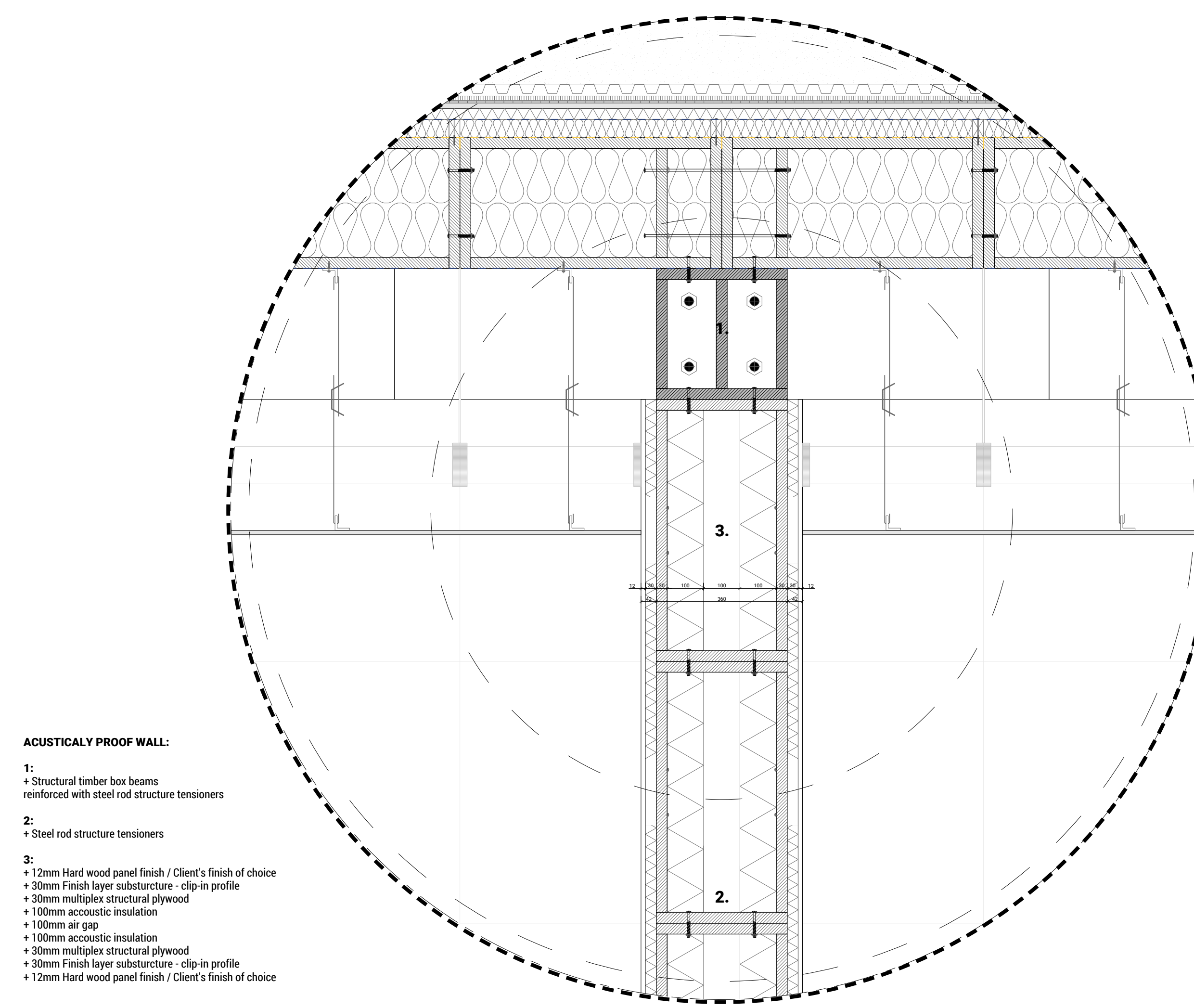
**DETAIL 04 @ 1:5 - BALCONY INTEGRATION**



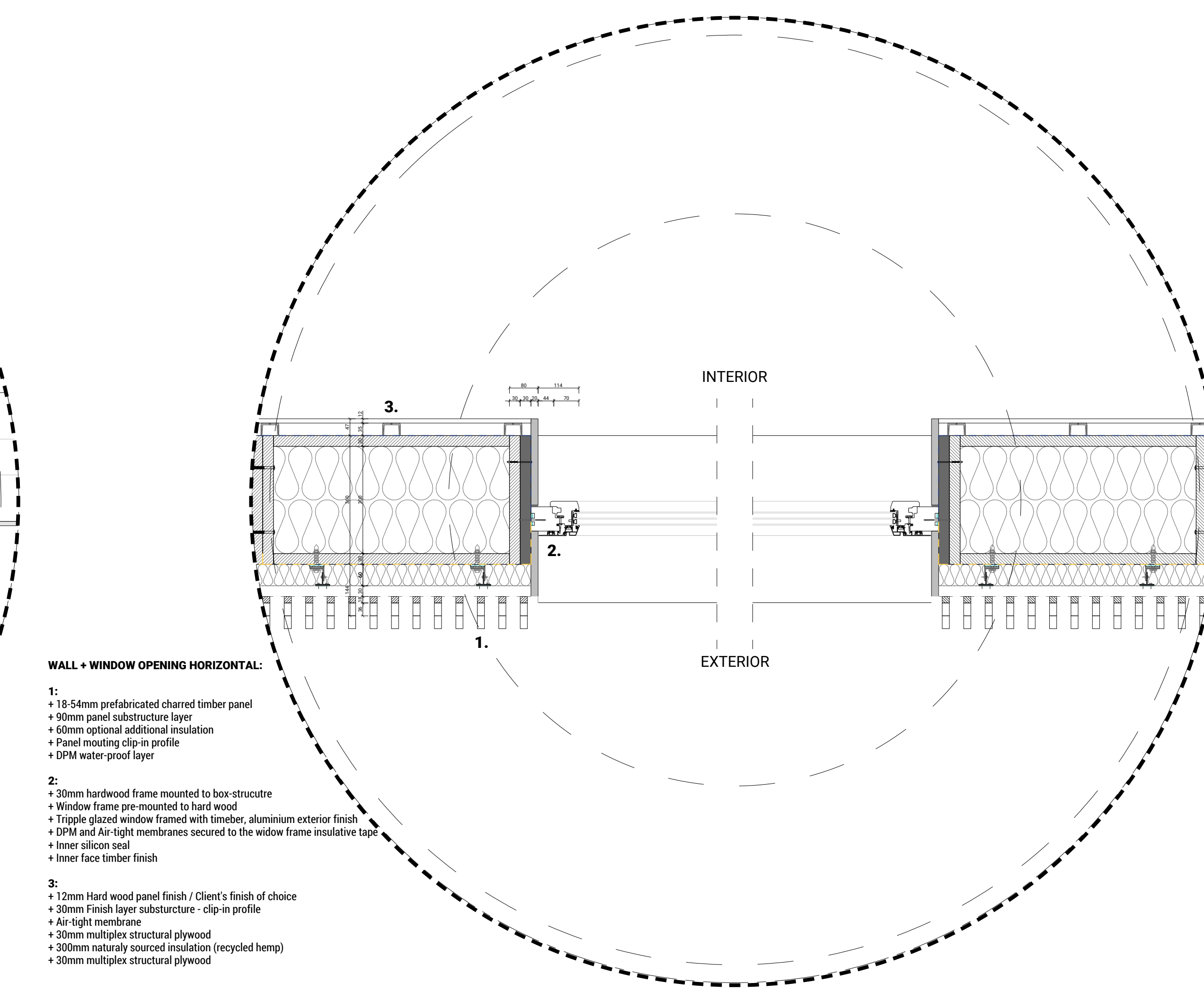
**LI-Build**



**DETAIL 05 @ 1:5 - ACOUSTICALLY INSULATING WALL**



**DETAIL 3B @ 1:5 - WINDOW INTEGRATION HORIZONTAL**



**WikiHouse**

