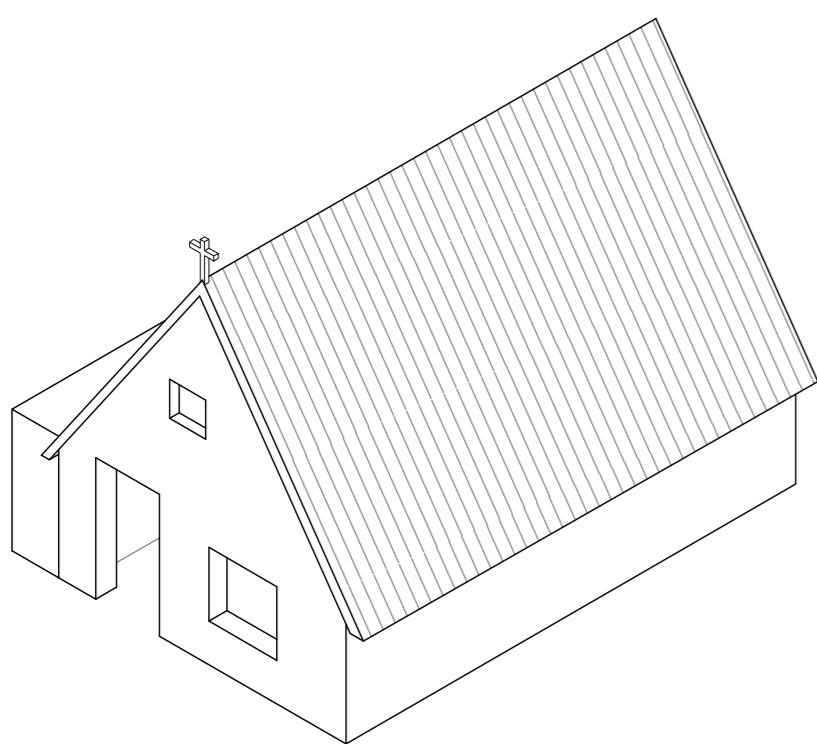


THE CHOSEN PLOT | EAST LIMIT OF PINEDO 1 : 5 000 N<sup>^</sup>

PROGRAM | TRADES SCHOOL OF PINEDO



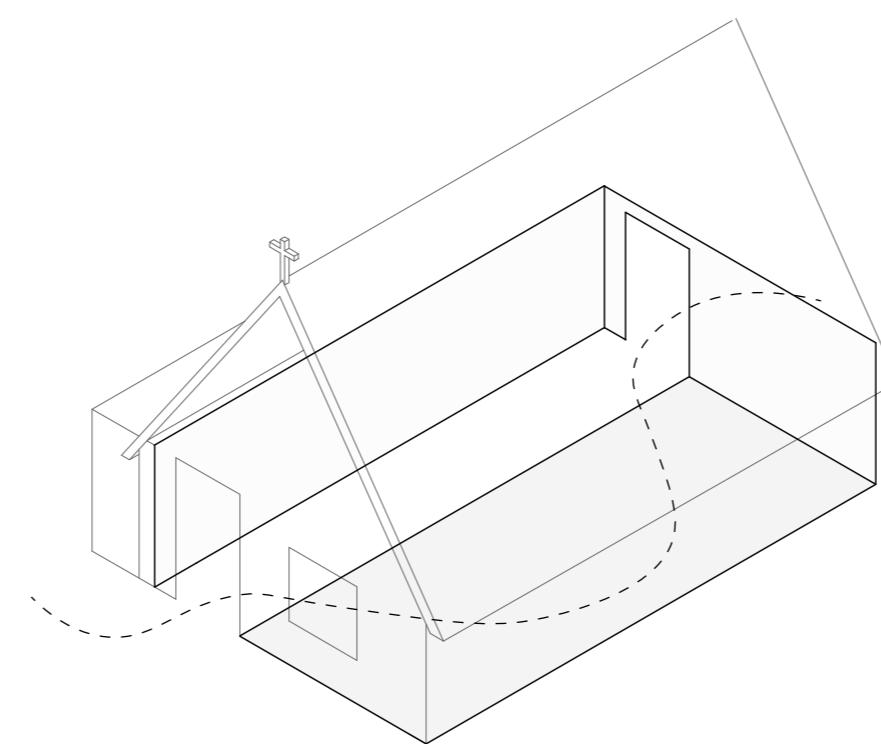
BARRACAS' DIMENSIONS

THE BARRACAS ARE THE TRADITIONAL FISHERMAN AND FARMERS HOUSING FROM THE VALENCIAN COAST. NOWADAYS IN PINEDO IT IS POSSIBLE TO VISIT JUST ONE BARRACA LEFT, IN THE MAIN STREET OF THE VILLAGE BETWEEN NEW AND HIGH CONSTRUCTIONS, WHERE PEOPLE ACTUALLY LIVE.

GENERALLY, THE DIMENSIONS OF THESE CONSTRUCTIONS ARE SIMILAR, ALSO THE MATERIALS, WHICH ARE THOSE WHO ARE EASY TO FIND IN THE ENVIRONMENT.

THE PLOT WHERE THE BARRACAS ARE LOCATED HAS NORMALLY AROUND 6'50 METRES WIDTH, PLUS 0'65 METRES MORE CALLED LA ESCALÀ, USED AS MAINTENANCE WORK. ON THE OTHER HAND, THE LONGEST SIDE OF THE BARRACA IS ALMOST 10'50 METRES, FORMING A RECTANGULAR BASE.

THE ROOF IS ONE OF THE MOST SINGULAR ITEMS OF THE BARRACA, DISPOSED AS GABLE ROOF AND REACHING BETWEEN 6'00 AND 8'00 METRES HIGH.



BARRACAS' DISTRIBUTION

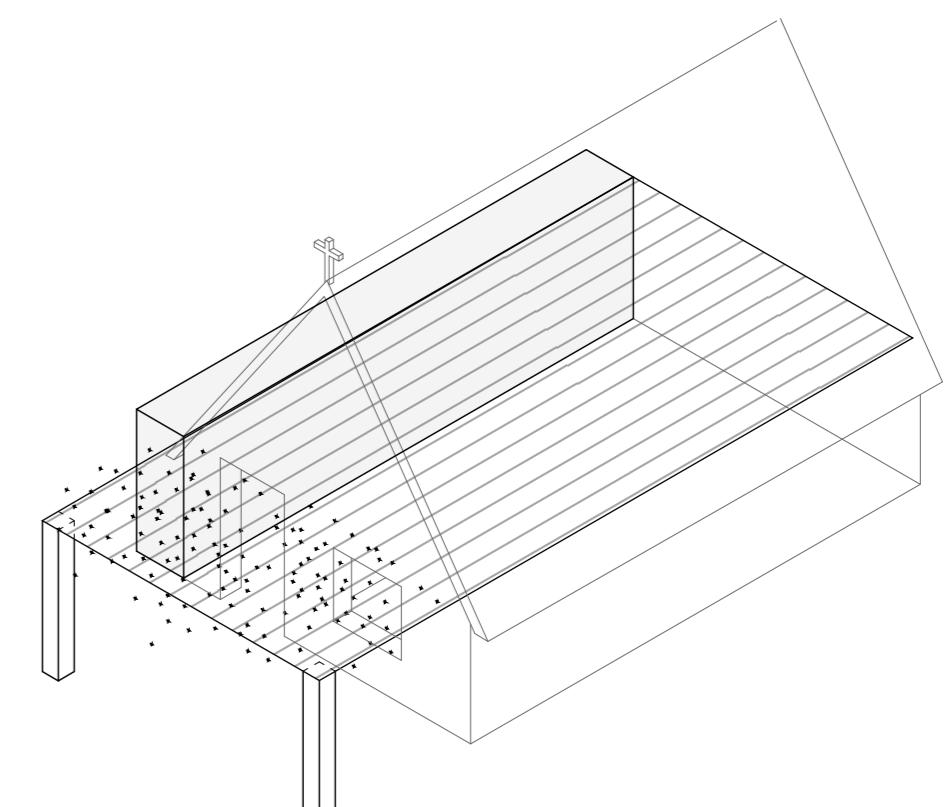
THE INTERIOR SPACE OF THE BARRACAS ARE SIMPLE, AND SIMILAR BETWEEN THE DIFFERENT TYPES OF BARRACAS.

GENERALLY, THE MAIN ACCESS ARE LOCATED IN ONE SIDE OF THE FAÇADE, NORMALLY ON THE LEFT SIDE, HAVING A WINDOW ON THE LEFT.

FOLLOWING THE MAIN DOOR, IT IS THE CIRCULATION CORRIDOR, WITH 2'75 METRES WIDTH WHICH CONNECTS THE DIFFERENT AREAS OF THE HOUSE, LOCATED ON THE OPOSITE SIDE OF THE BARRACA.

NORMALLY, ON THE OPOSITE FAÇADE THERE IS ANOTHER DOOR WHICH CONECTS WITH THE FIELDS AND HELPS THE NATURAL VENTILATION.

THIS SCHEME OF INTERIOR ROUTES ARE SIMPLIFIED BY A SPACE WHERE THE ACTIVITIES CAN BE DEVELOPED AND THE CORRIDOR WHICH CONECTS THESE ROOMS AND ALSO BOTH FAÇADES OF THE BARRACA. LONGEST SIDE OF THE BARRACA IS ALMOST 10'50 METRES, FORMING A RECTANGULAR BASE.



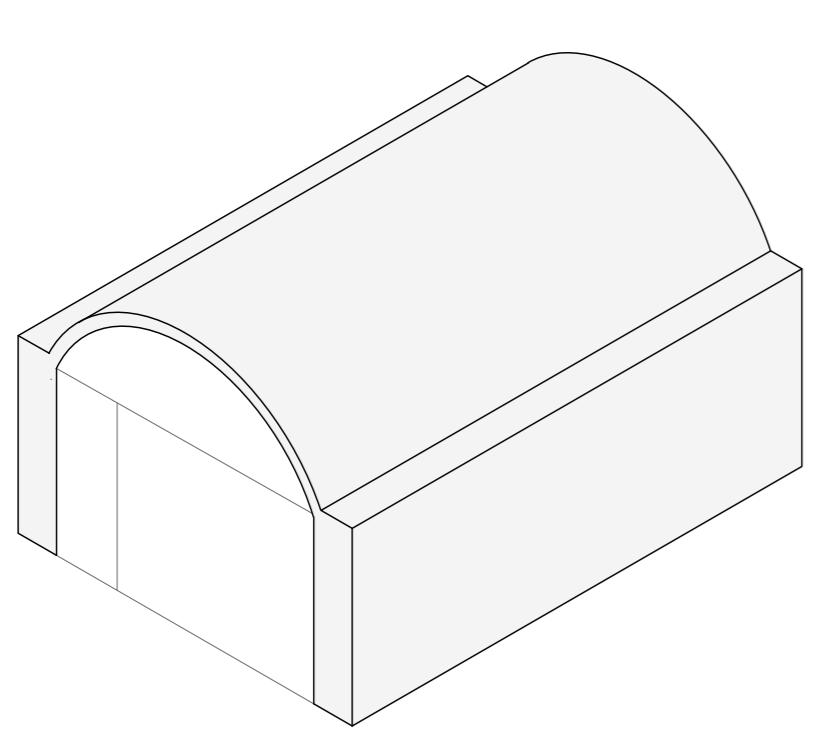
BARRACAS' ITEMS

THE MAIN CONSTRUCTION ARE ALSO COMPLETED BY DIFFERENT ITEMS THAT HELPS THE CONFORT IN THE BARRACAS.

LA ESCALÀ, IS AN EXTERIOR VOLUME LOCATED ALONG THE LONGEST SIDE OF THE PLOT. THIS SPACE IS USED TO MANTAINCE WORK AND ALSO TO DRAWNING WATER.

L'ANDANA, IS AN INTERIOR STRUCTURE WHICH CREATES A FIRST FLOOR USED AS STORAGE ROOM, AND ALSO TO DRY THE PRODUCTS FROM THE FIELDS AND ORCHARDS.

SOMETIMES IT IS POSSIBLE TO FIND ALSO A PORCH IN THE MAIN FAÇADE, WHICH BRINGS SHADOW IN THE HOTTESTS DAYS. THIS STRUCTURE ARE NORMALLY COVER WITH VINE PLANTS AND HAS THE DIMENSION OF THE COMPLETE FAÇADE WEIDTH AND ALMOST 4'00 METRES LONG.



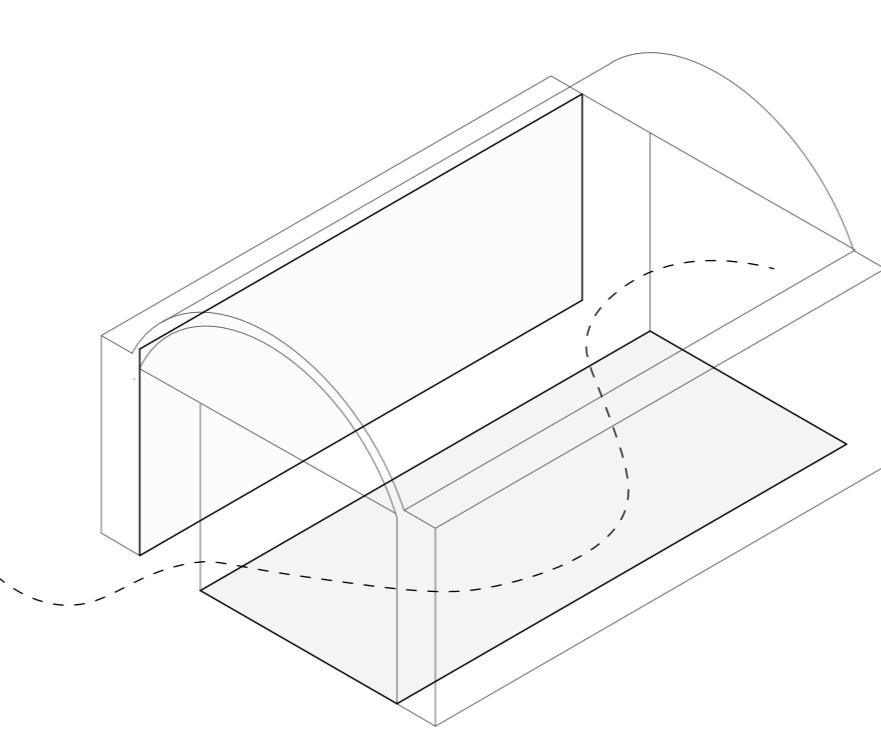
NEW UNITS' DIMENSIONS

THE CONSTRUCTIONS OF THE PROPOSAL FOR THE TRADES SCHOOL ARE BASED IN THE MORFOLOGY OF THE HISTORICAL BARRACAS OF THE ALBUFERA.

ALL NEW VOLUMES ARE DESIGNED AS A REINTERPRETATION OF THE VERNACULAR ARCHITECTURE FROM THE PLACE, HONOURING ALL THESE CONSTRUCTIONS AND TRYING TO BUILD A NEW PLACE TAKING INTO ACCOUNT THE MEMORY OF THE ENVIRONMENT BUT WITH TODAY'S NEEDS, GIVING THE OPPORTUNITY OF REVALUE THE VILLAGE OF PINEDO.

THE PROJECT ARE DESIGNED WITH THE DIMENSION OF THE BARRACA, HAVING 6'50 METRES WIDTH AND 10'50 METRES LONG, AS THE HISTORICAL ONES. ALSO, THE ROOF HAS 6'00 METRES HIGH BUT THIS ONE IS AN INTERPRETATION DESIGNED AS VAULT ALONG THE VOLUME .

ALL OF THIS MAKES A MODULAR ARCHITECTURE TO COMBINE AL THESE ELEMENTS TO CREATE THE NEW SCHOOL.



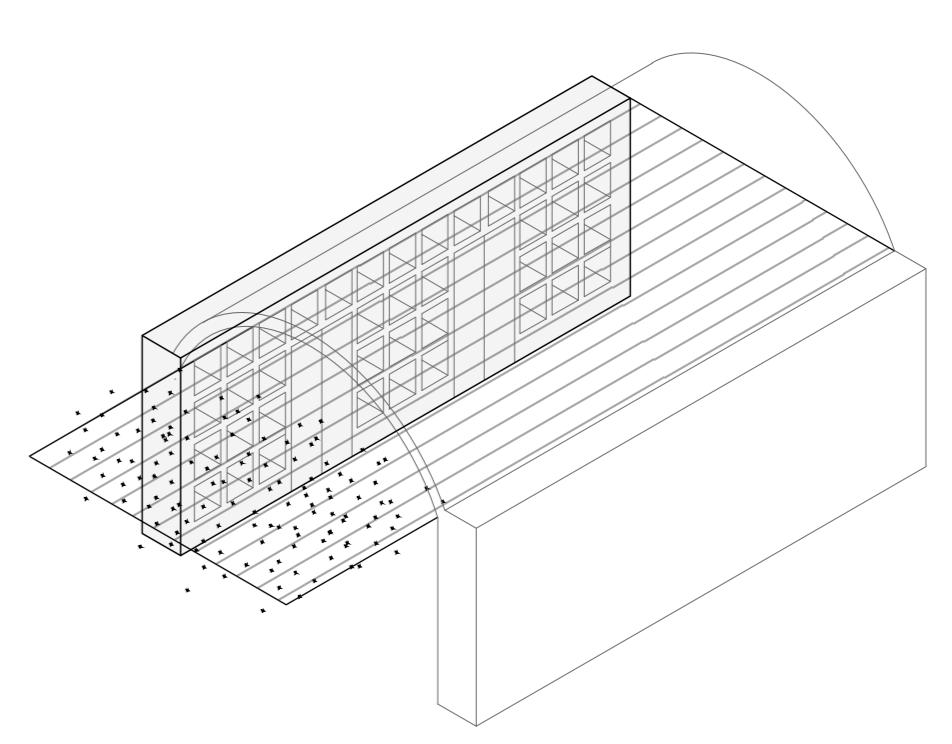
INTERIOR DISTRIBUTION

THE SPACE BETWEEN WALLS OF THESE NEW MODULES WORKS AS A BARRACA. THE INTERIOR ACTIVITIES ARE DIVIDED IN TWO DIFFERENT PLACES.

THERE IS A SPACE FOR THE CONEXION, WHICH ACCESS IS LOCATED ON THE LEFT SIDE OF THE FAÇADE AND CONNECTS WITH THE ACTIVITY AREAS AND ALSO WITH THE DIFFERENTS SPACES, MAKING POSSIBLE TO WALK ARROUND THE BUILDING.

THE PROGRAM OF THE SCHOOL, CLASSES AND EVERY KIND OF SERVICES ARE ALWAYS LOCATED ON THE RIGHT SIDE OF THE MODULE, MATCHING WITH THE POSITION OF THE ROOMS OF THE BARRACAS.

ALSO, THE ACCESS TO EACH MODULE IS LOCATED ON THE LEFT SIDE AND ON THE RIGHT SIDE THERE IS A GLASS AS WINDOW IN MEMORY OF THE DISPOSITION OF THESE ELEMENTS IN THE BARRACAS.



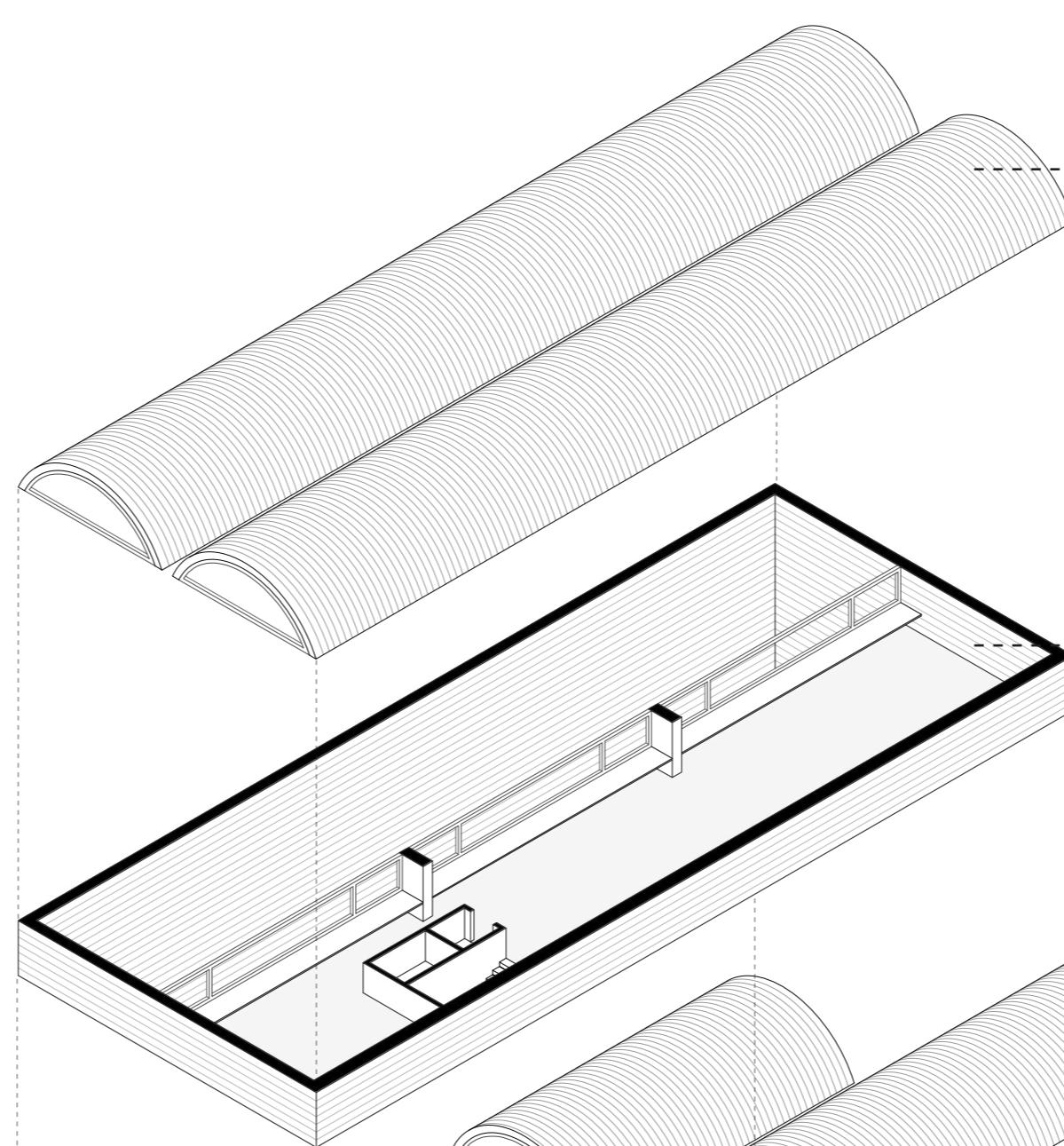
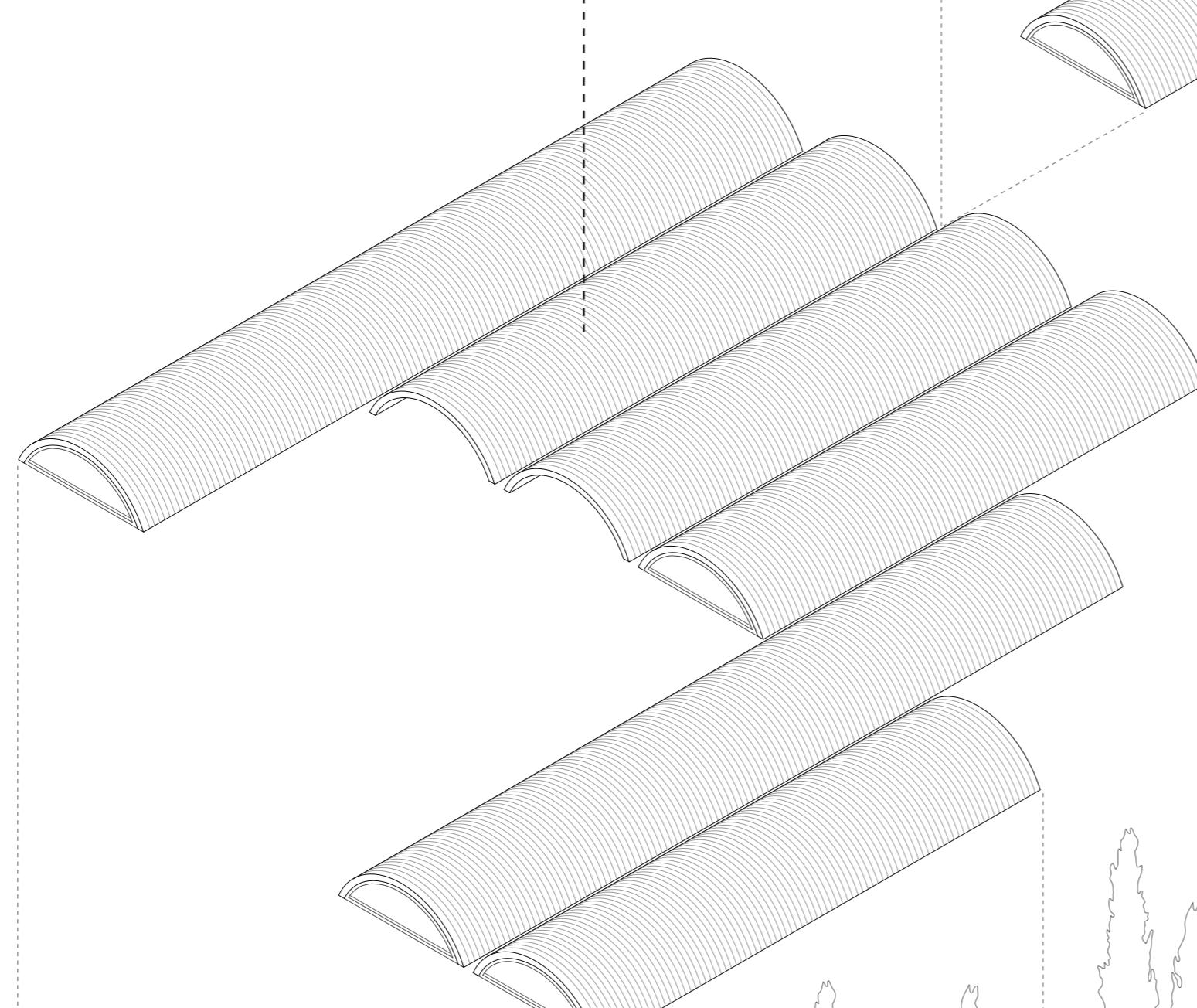
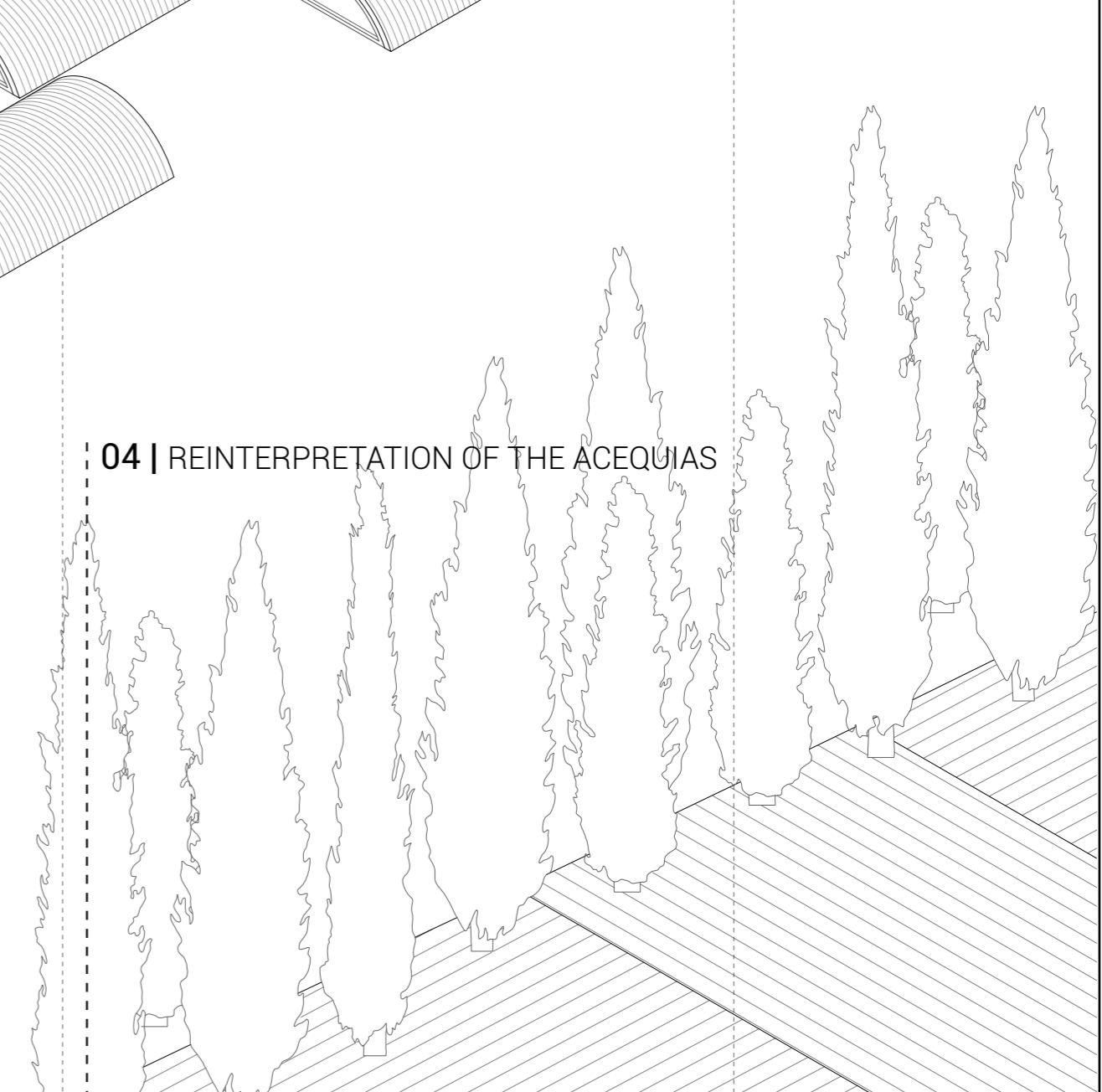
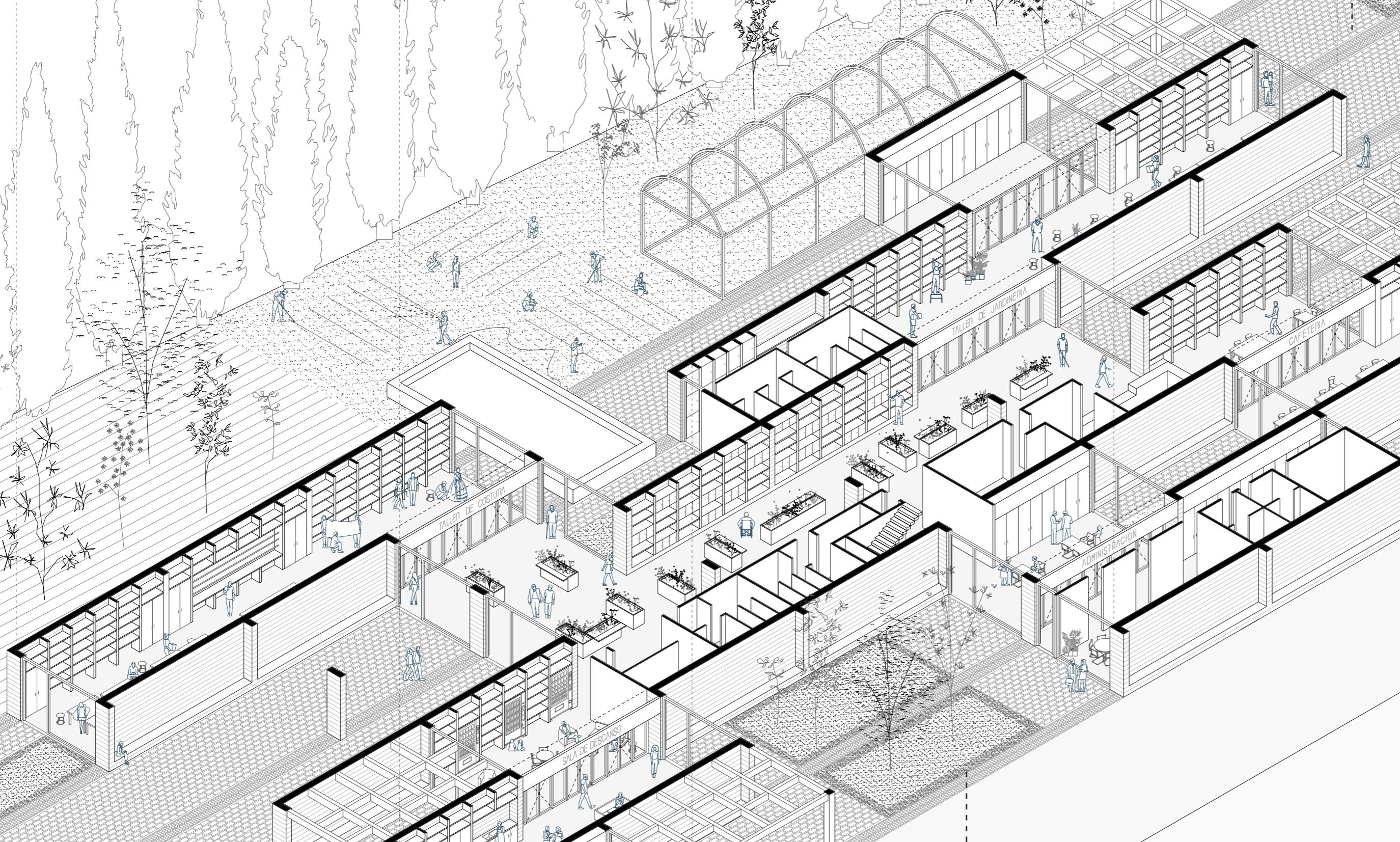
FUNCTIONAL ITEMS

THE MAIN CONSTRUCTION ITEMS THAT COMPLETE THE BARRACAS ARE ALSO TAKING INTO ACCOUNT IN THE NEW PROJECT, AWNSWERING THE NEEDS OF TODAYS PEOPLE.

LA ESCALÀ, HAS NEW USE SIMILAR TO THE ORIGINAL, IT IS INCORPORATED INTO THE INTERIOR SPACE AS A FITTED WALL, HAVING THERE DIFFERENT PLACES FOR STORAGE AND LOCKERS FOR THE STUDENTS, BUT ALSO ALL THE FACILITIES WILL BE RUNNING INSIDE IT. EVERY ROOM HAS HIS OWN FITTED WALL TO SOLVE THE NEEDS OF EACH.

L'ANDANA IS PROJECTED AS A NEW STRUCTURE TO LOW THE HIGH OF THE SPACE, BUT ALWAYS SEEING THE VAULTS, THIS STRUCTURE IS ALONG THE INTERIOR OF THE PROJECT, BUT ALSO GOES OUTSIDE WITH ITS ORIGINAL PURPOSE OF PROTECTING FROM THE SUN AND HAVE VINE PLANTS ON IT.

IN THE LEARNING AREAS, THE USE OF HIS STRUCTURE COULD BE PART OF THE STORAGE FOR THE DIFFERENT MATERIALS AND ALSO AS A PLACE TO HANG THE HANDMAIDS TO WORK EASILY.

**06 | CERAMIC VAULTS SYSTEM****FIRST FLOOR | LIBRARY****CERAMIC VAULTS SYSTEM | 06****MAIN ACCESS | 01****04 | REINTERPRETATION OF THE ACEQUIAS****03 | FITTED WALLS SYSTEM****02 | SECOND ACCESS****05 | PRE-EXISTING ORCHARDS**

**01 | MAIN ACCESS**  
HISTORICAL TREMOLAR TRAIL AS MAIN ACCESS FOR THE BUILDING, THIS WAY, IT RECOVERS ITS OWN VALUE BY MAKING PEOPLE GET INTO THE SCHOOL BY THIS ROAD.  
IT IS GETTING IMPORTANCE BECAUSE OF THE NEW VEGETATION AND BENCHES THAT ARE INSTALLED THERE, MAKING POSSIBLE THE VIEWS TO THE FIELDS.

**02 | SECOND ACCESS**  
ACCESS TO THE ADMINISTRATION BY ONE OF THE ORCHARDS THAT EXISTED PREVIOUSLY OG THE ACTUATION.  
ALSO USED AS A SMALL SQUARE FOR THE HAIRDRESSING-VISITORS, LAUNDRY USERS AND EMPLOYEES.

**03 | FITTED WALLS SYSTEM**  
WALLS DESIGNED AS A SYSTEM TO AWNSER THE NEEDS OF EACH SPACE.  
SPACE FOR FACILITIES TRACES ON TOP OF THE WALL IS LOCATED THE DRAWING WATER-SYSTEM FOR RAIN WATER.  
MAIN USE AS PINE WOOD SHELVES.

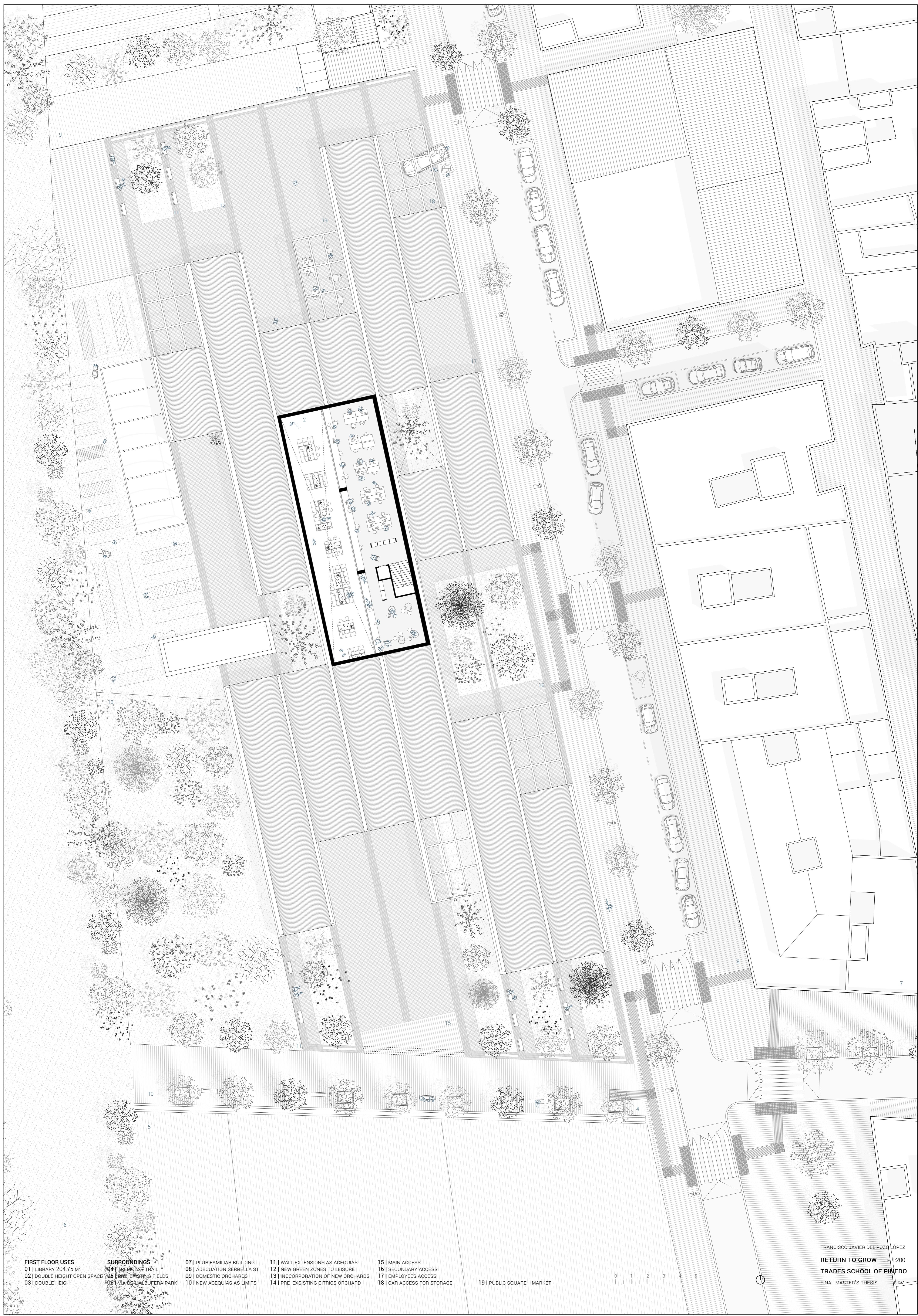
**04 | REINTERPRETATION OF THE ACEQUIAS**  
NEW IRRIGATION SYSTEM FOR THE ORCHARDS INSPIRED ON THE HISTORICAL ACEQUIAS SYSTEM, AS AN EXTENSION OF THE FITTED WALLS.  
THE EXTERIOR OF THE BUILDING IT IS THOUGHT AS THE INSIDE, AS A LANE OF FACILITIES, A SECOND ONE FOR CIRCULATION AND THE LAST ONE FOR ACTIVITIES.

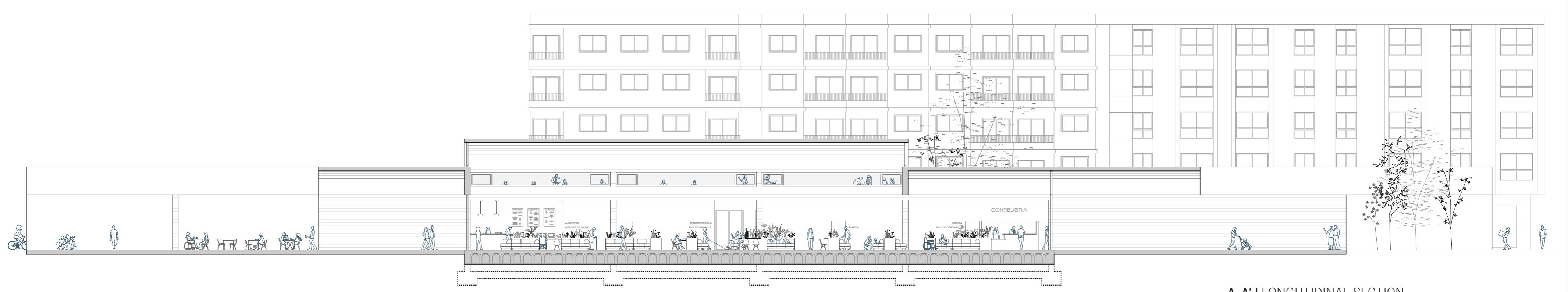
**05 | PREEXISTING ORCHARDS**  
RESPECT FOR THE EXISTING FIELDS INTEGRATION OF THE ORCHARDS FOOTPRINTS IN THE PROPOSAL AND ALSO THERE ARE NEW ONES TO COMPLEMENT THE GARDENING WORKSHOP.

**06 | CERAMIC VAULTS SYSTEM**  
CERAMIC BRICK VAULTS AS ENVELOPE OF THE PROJECT, USING A TRADITIONAL CONSTRUCTION IN A NEW BUILDING TO ENCOURAGE THE TRADITIONAL VALUE OF PINEDO USED AS ROOF, BUT ALSO TO GENERATE SHADOWS IN THE EXTERIOR SPACES.

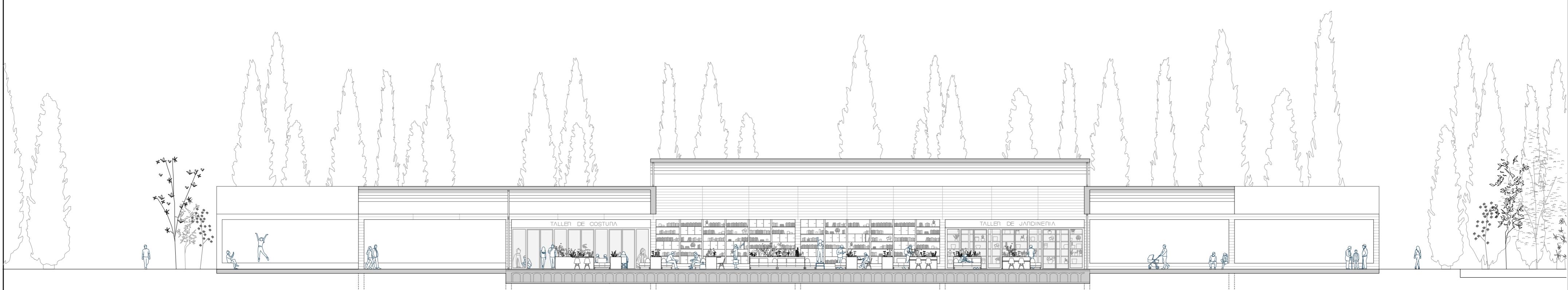
FRANCISCO JAVIER DEL POZO LÓPEZ  
**RETURN TO GROW** E 1:200  
TRADES SCHOOL OF PINEDO  
FINAL MASTER'S THESIS UPV



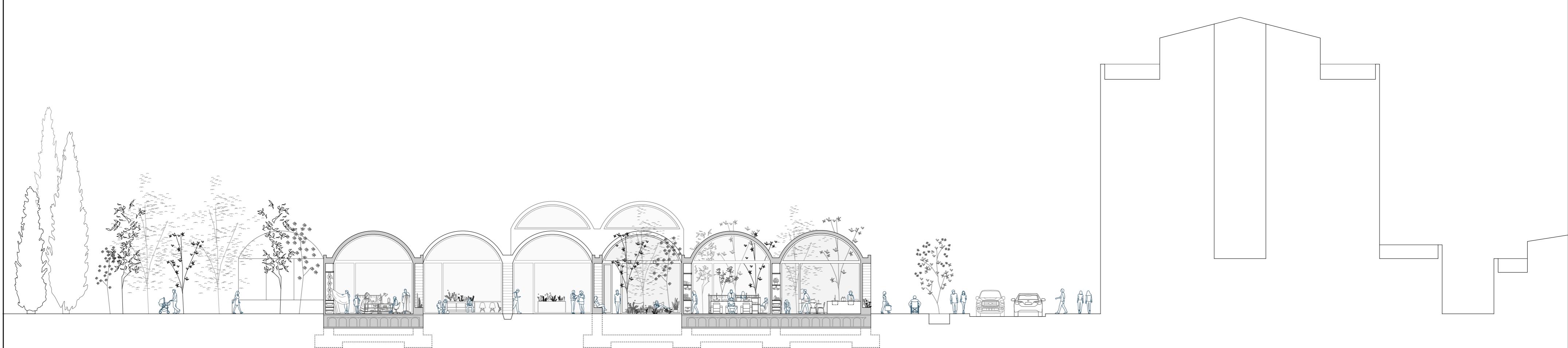




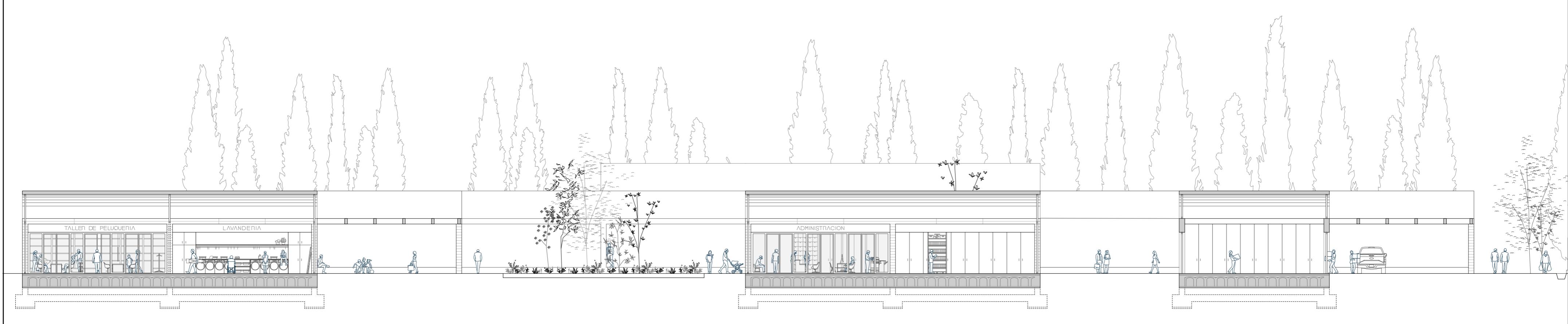
A-A' | LONGITUDINAL SECTION



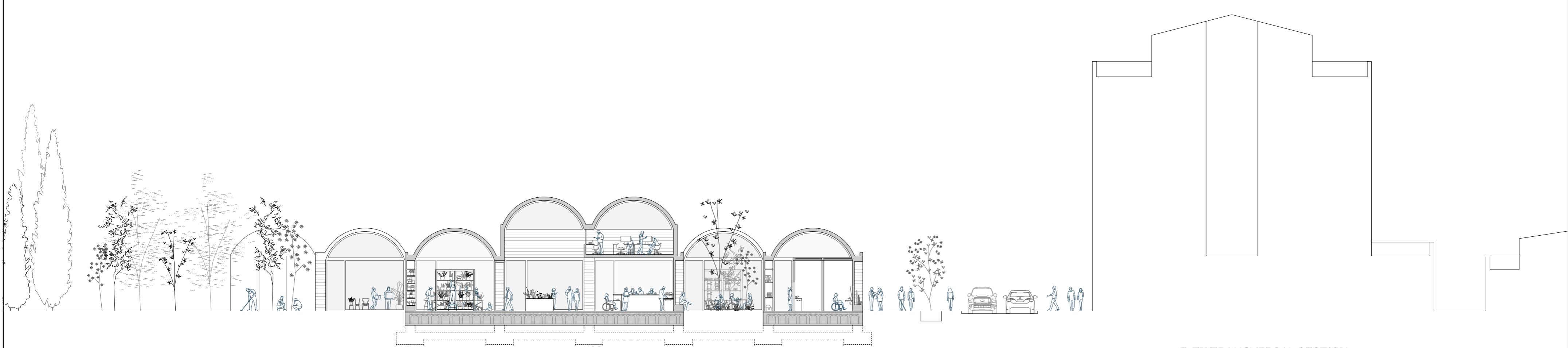
B-B' | LONGITUDINAL SECTION



C-C' | TRANSVERSAL SECTION



D-D' | LONGITUDINAL SECTION



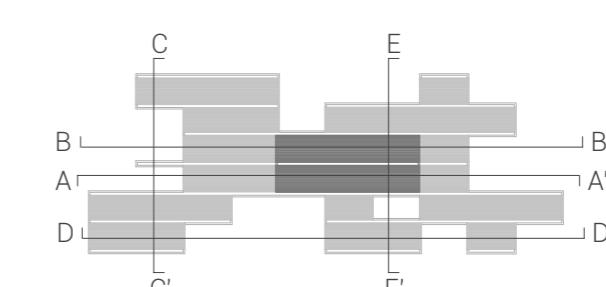
E-E' | TRANSVERSAL SECTION

FRANCISCO JAVIER DEL POZO LÓPEZ

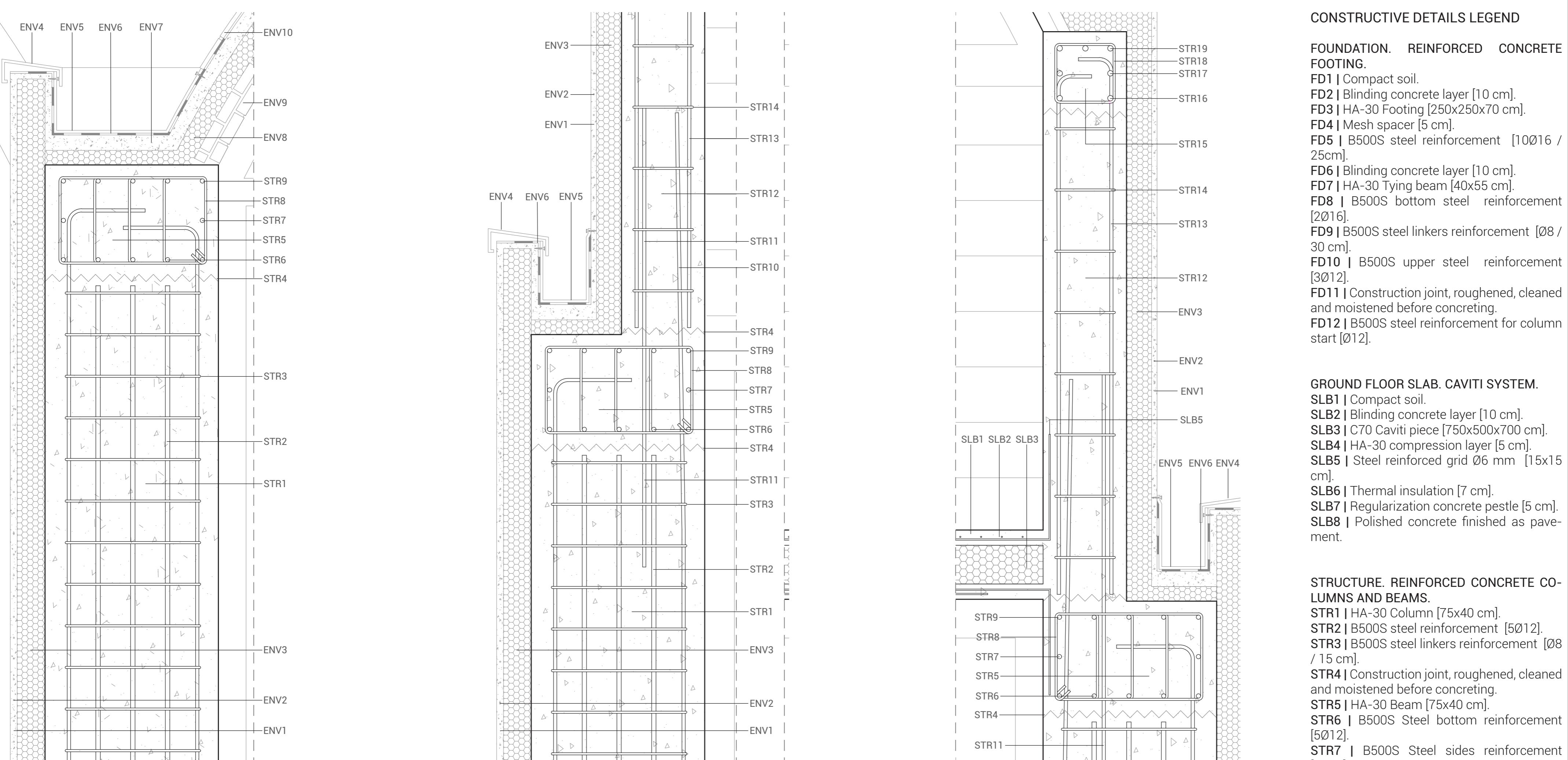
RETURN TO GROW E 1:200

TRADES SCHOOL OF PINEDO

FINAL MASTER'S THESIS UPV



0 1 2 3 4 5



STRUCTURE DETAIL | COLUMN WITH BEAM JOINT. E 1:10.

STRUCTURE DETAIL | COLUMN SECTION DECREASE. E 1:10.

STRUCTURE DETAIL | COLUMN WITH SLAB JOINT. E 1:10.

**CONSTRUCTIVE DETAILS LEGEND**

**FOUNDATION. REINFORCED CONCRETE FOOTING.**

- FD1 | Compact soil.
- FD2 | Blinding concrete layer [10 cm].
- FD3 | HA-30 Footing [250x250x70 cm].
- FD4 | Mesh spacer [5 cm].
- FD5 | B500S steel reinforcement [10Ø16 / 25cm].
- FD6 | Blinding concrete layer [10 cm].
- FD7 | HA-30 Tying beam [40x55 cm].
- FD8 | B500S bottom steel reinforcement [Ø16].
- FD9 | B500S steel linkers reinforcement [Ø8 / 30 cm].
- FD10 | B500S upper steel reinforcement [Ø12].
- FD11 | Construction joint, roughened, cleaned and moistened before concreting.
- FD12 | B500S steel reinforcement for column start [Ø12].

**GROUND FLOOR SLAB. CAVITI SYSTEM.**

- SLB1 | Compact soil.
- SLB2 | Blinding concrete layer [10 cm].
- SLB3 | C70 Cavity piece [750x500x700 cm].
- SLB4 | HA-30 compression layer [5 cm].
- SLB5 | Steel reinforced grid Ø6 mm [15x15 cm].
- SLB6 | Thermal insulation [7 cm].
- SLB7 | Regularization concrete pestle [5 cm].
- SLB8 | Polished concrete finished as pavement.

**STRUCTURE. REINFORCED CONCRETE COLUMNS AND BEAMS.**

- STR1 | HA-30 Column [75x40 cm].
- STR2 | B500S steel reinforcement [Ø12].
- STR3 | B500S steel linkers reinforcement [Ø8 / 15 cm].
- STR4 | Construction joint, roughened, cleaned and moistened before concreting.
- STR5 | HA-30 Beam [75x40 cm].
- STR6 | B500S Steel bottom reinforcement [Ø12].
- STR7 | B500S Steel sides reinforcement [Ø12].
- STR8 | B500S Steel linkers [Ø8 / 15 cm].
- STR9 | B500S Steel upper reinforcement [Ø12].
- STR10 | B500S Steel reinforcement for column start [Ø12].
- STR11 | B500S Steel lap splice [Ø12].
- STR12 | HA-30 Column [30x30 cm].
- STR13 | B500S Steel reinforcement [Ø12].
- STR14 | B500S Steel linkers [Ø8 / 20 cm].
- STR15 | HA-30 Beam [30x30 cm].
- STR16 | B500S Steel bottom reinforcement [Ø20].
- STR17 | B500S Steel sides reinforcement [Ø20].
- STR18 | B500S Steel linkers [Ø8 / 15 cm].
- STR19 | B500S Steel upper reinforcement [Ø20].

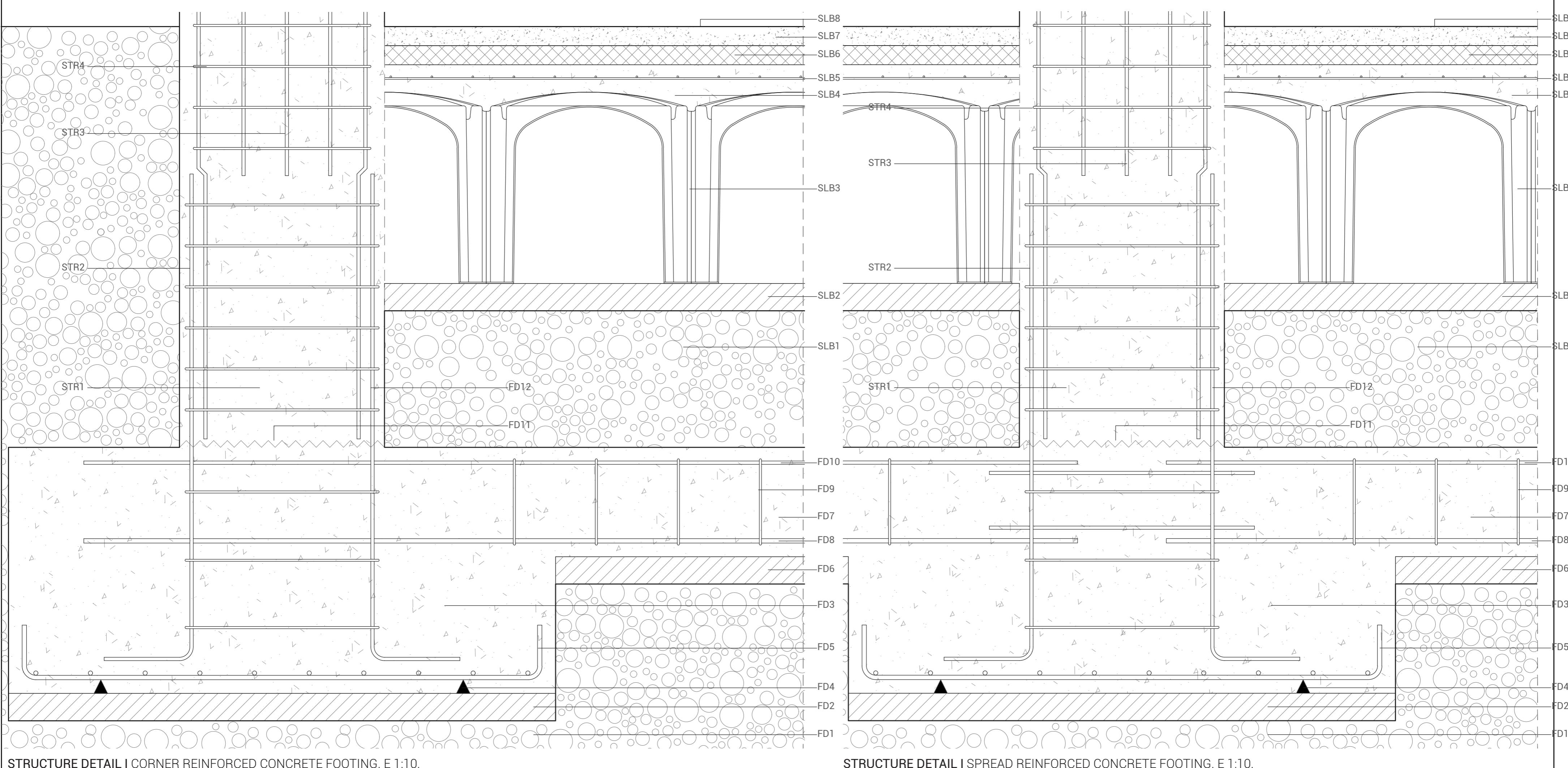
**ENVELOPE. BSN100 BAUPANEL SYSTEM AND CERAMIC VAULTS.**

- ENV1 | HA-30 projected concrete layer [3 cm].
- ENV2 | Steel reinforcement transversal bars [Ø2.50 cm / 7.5 cm].
- ENV3 | EPS insulation panel [10 cm].
- ENV4 | Metallic coping piece.
- ENV5 | Metallic rain water sewer.
- ENV6 | Waterproof sheet.
- ENV7 | HA-30 concrete regularization pestle [5 cm].
- ENV8 | Projected polyurethane insulation [7 cm].
- ENV9 | Ceramic brick [25x11x4 cm].
- ENV10 | Ceramic brick [12x12x1.5 cm].

**FIRST FLOOR SLAB. BAUPANEL SYSTEM.**

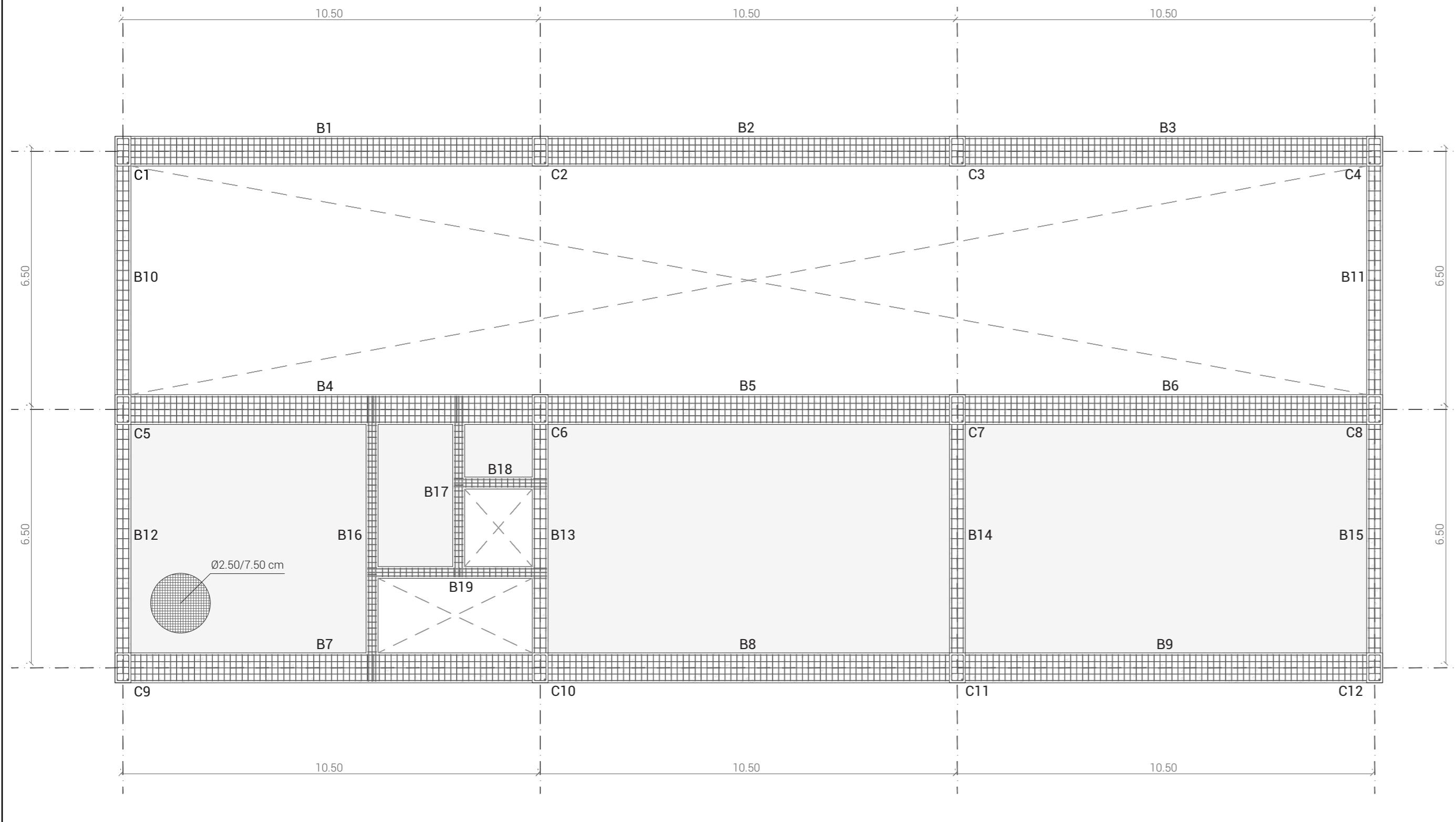
- SLB1 | HA-30 projected concrete compression layer [6 cm].
- SLB2 | Steel reinforcement [Ø2.5 / 7.5 cm].
- SLB3 | EPS insulation panel [10 cm].
- SLB4 | HA-30 projected concrete compression layer [4 cm].
- SLB5 | Steel reinforced bars joining the column.

FOUNDATION PLAN | CENTRAL VOLUME. E 1:100.



STRUCTURE DETAIL | CORNER REINFORCED CONCRETE FOOTING. E 1:10.

STRUCTURE DETAIL | SPREAD REINFORCED CONCRETE FOOTING. E 1:10.



#### CONSTRUCTIVE DETAILS LEGEND

##### FOUNDATION. REINFORCED CONCRETE TYING BEAM.

- FD1 | Compact soil.
- FD2 | Blinding concrete layer [10 cm].
- FD3 | HA-30 Tying beam [40x55 cm].
- FD4 | B500S bottom steel reinforcement [2016].
- FD5 | B500S steel linkers reinforcement [Ø8 / 30 cm].
- FD6 | B500S Steel sides reinforcement [2012].
- FD7 | B500S upper steel reinforcement [Ø016].

##### GROUND FLOOR SLAB. CAVITI SYSTEM.

- SLB1 | Compact soil.
- SLB2 | Blinding concrete layer [10 cm].
- SLB3 | C70 Caviti piece [750x500x700 cm].
- SLB4 | HA-30 compression layer [5 cm].
- SLB5 | Steel reinforced grid Ø6 mm [15x15 cm].
- SLB6 | Thermal insulation [7 cm].
- SLB7 | Regularization concrete pestle [5 cm].
- SLB8 | Polished concrete finished as pavement.
- SLB9 | Expanded polystyrene (EPS) [5 cm].
- SLB10 | Perimetral HA-30 beam [20x75 cm].
- SLB11 | B500S reinforcement [6Ø12].
- SLB12 | Ventilation pipe.
- SLB13 | Ventilation exterior grid.

##### STRUCTURE. REINFORCED CONCRETE BEAMS.

- STR1 | HA-30 Beam [75x40 cm].
- STR2 | B500S Steel bottom reinforcement [5Ø12].

##### [5Ø12].

- STR3 | B500S Steel sides reinforcement [10Ø12].
- STR4 | B500S Steel linkers [Ø8 / 15 cm].
- STR5 | B500S Steel upper reinforcement [5Ø12].

##### ENVELOPE. BSN100 BAUPANEL SYSTEM AND CERAMIC VAULTS.

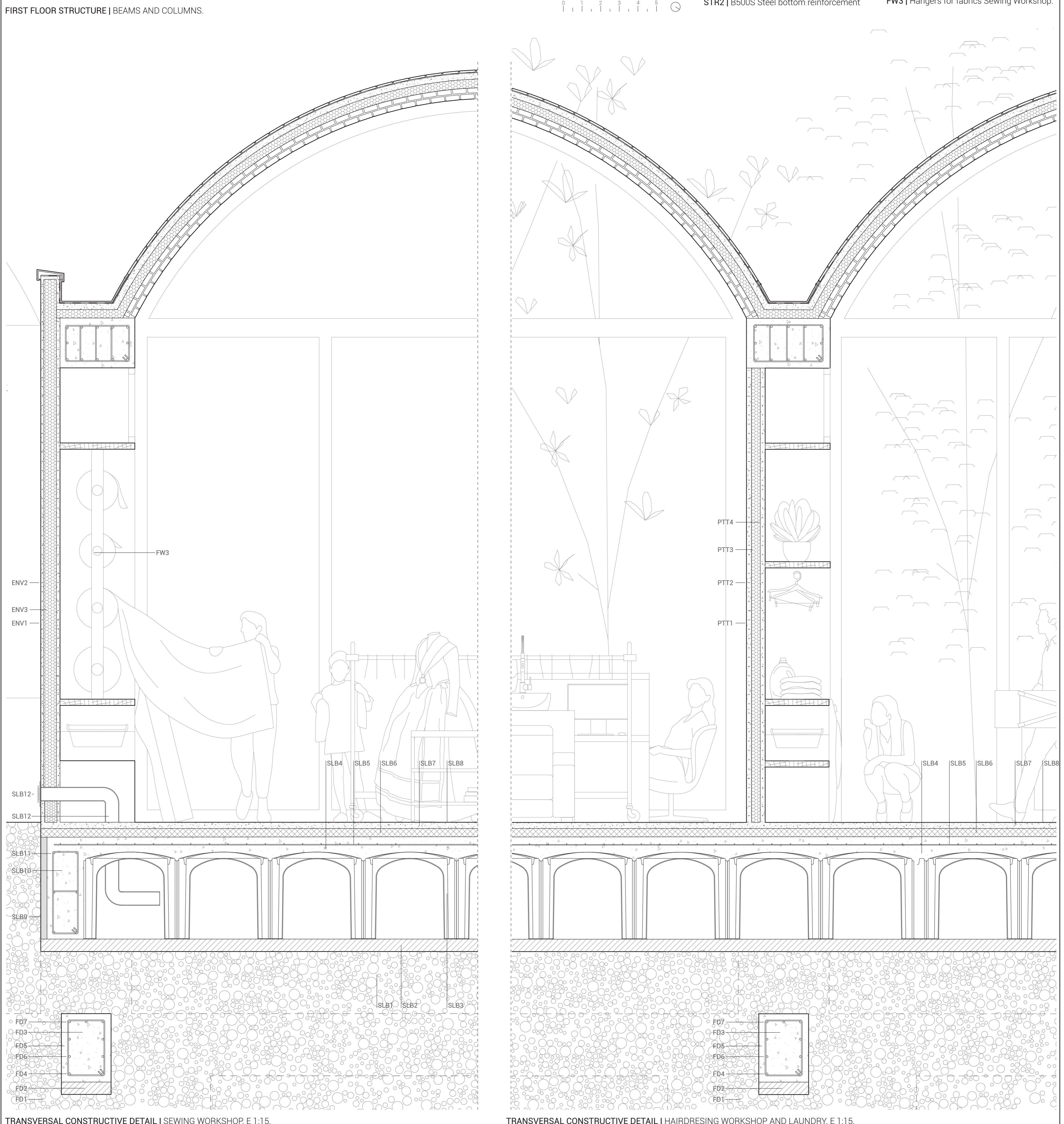
- ENV1 | HA-30 projected concrete layer [3 cm].
- ENV2 | Steel reinforcement transversal bars [Ø2.50 cm / 7.5 cm].
- ENV3 | EPS insulation panel [10 cm].
- ENV4 | Metallic coping piece.
- ENV5 | Metallic rain water sewer.
- ENV6 | Waterproof sheet.
- ENV7 | HA-30 concrete regularization pestle [5 cm].
- ENV8 | Projected polyurethane insulation [7 cm].
- ENV9 | Ceramic brick [25x11x4 cm].
- ENV10 | Ceramic brick [12x12x1.5 cm].

##### PARTITION. BSN90 BAUPANEL SYSTEM.

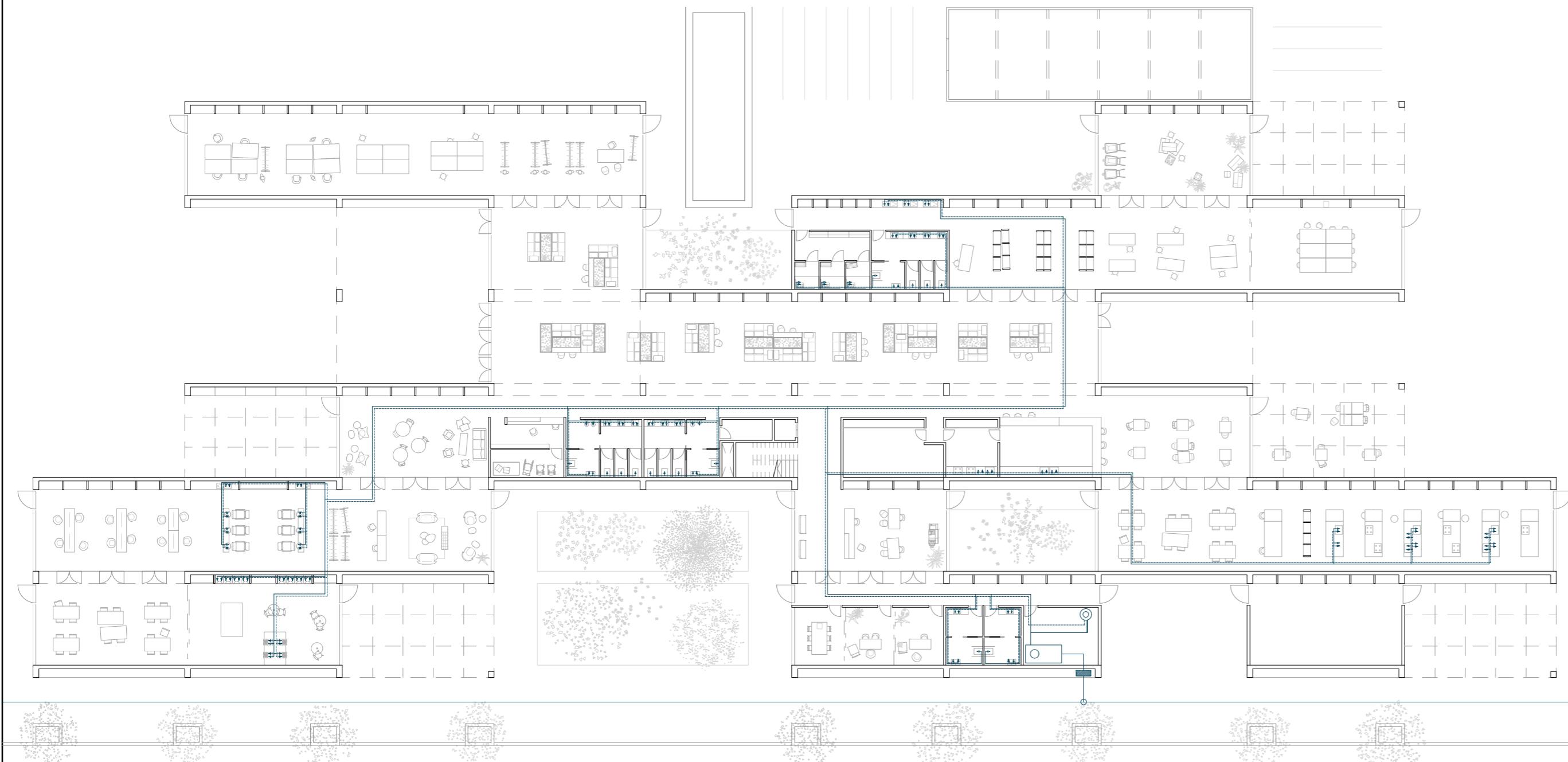
- PTT1 | HA-30 projected concrete layer [2.8 cm].
- PTT2 | Steel reinforcement transversal bars [Ø2.50 cm / 7.5 cm].
- PTT3 | EPS insulation panel [9 cm].
- PTT4 | HA-30 projected concrete layer [2.8 cm].

##### FITTED WALLS. STORAGE AND FACILITIES UNDER BEAMS.

- FW1 | Space for facilities conducts.
- FW2 | Pine wood shelves.
- FW3 | Hangers for fabrics Sewing Workshop.



HOT AND COLD WATER SYSTEM | ACCORDING TO CTE DB HS 4.

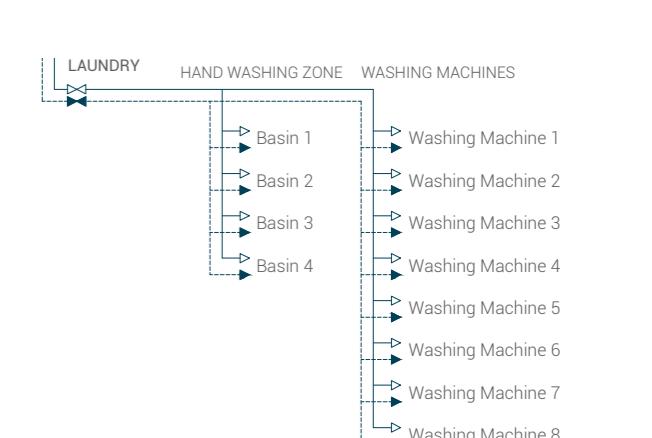
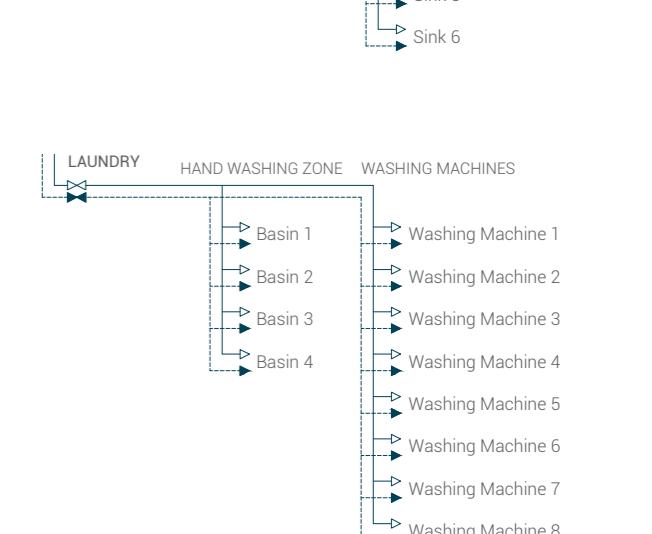
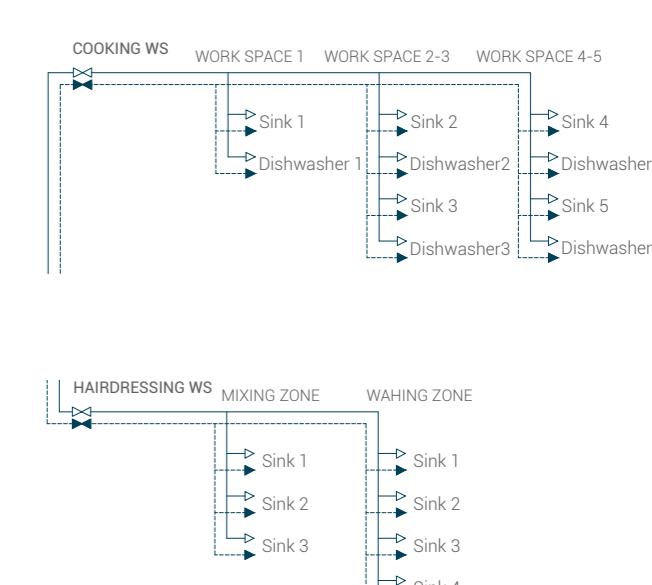
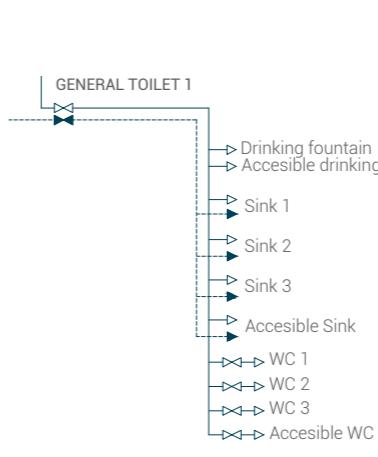
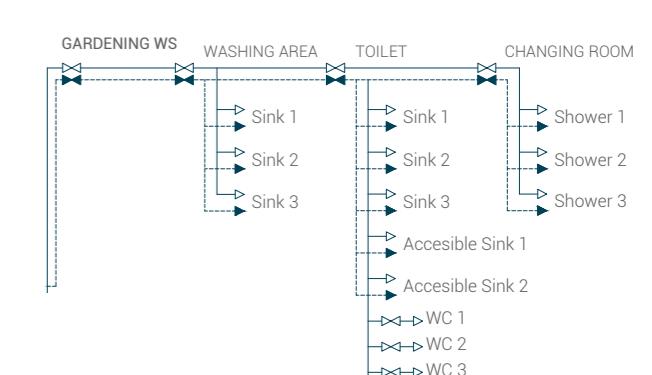
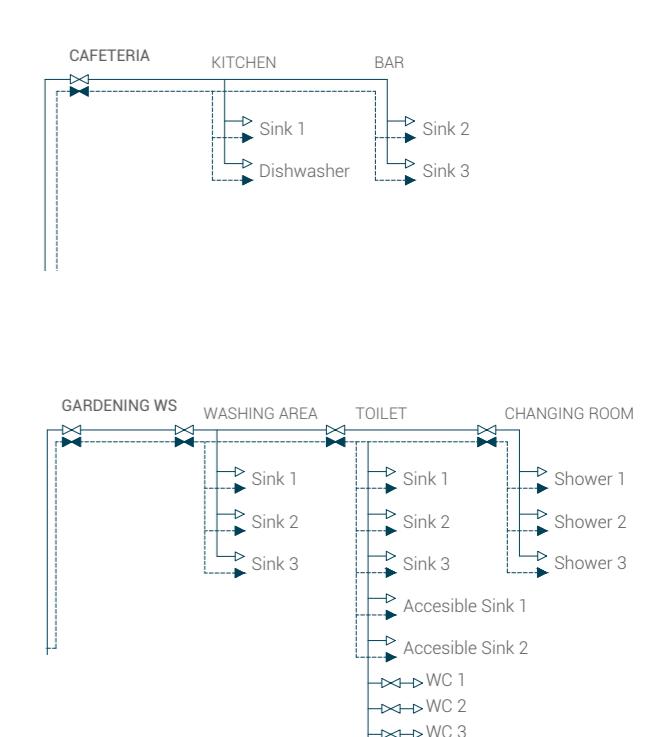
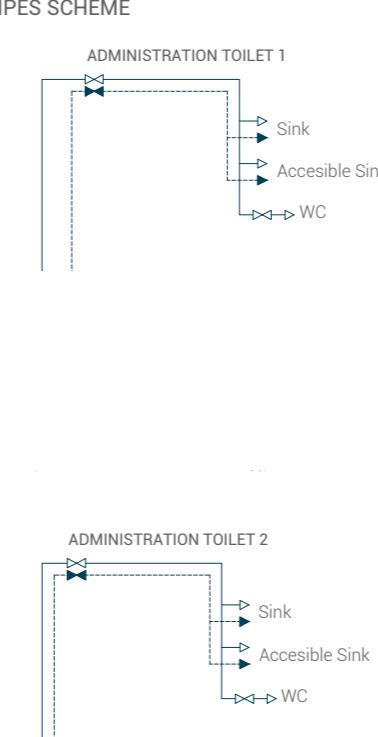


LEGEND

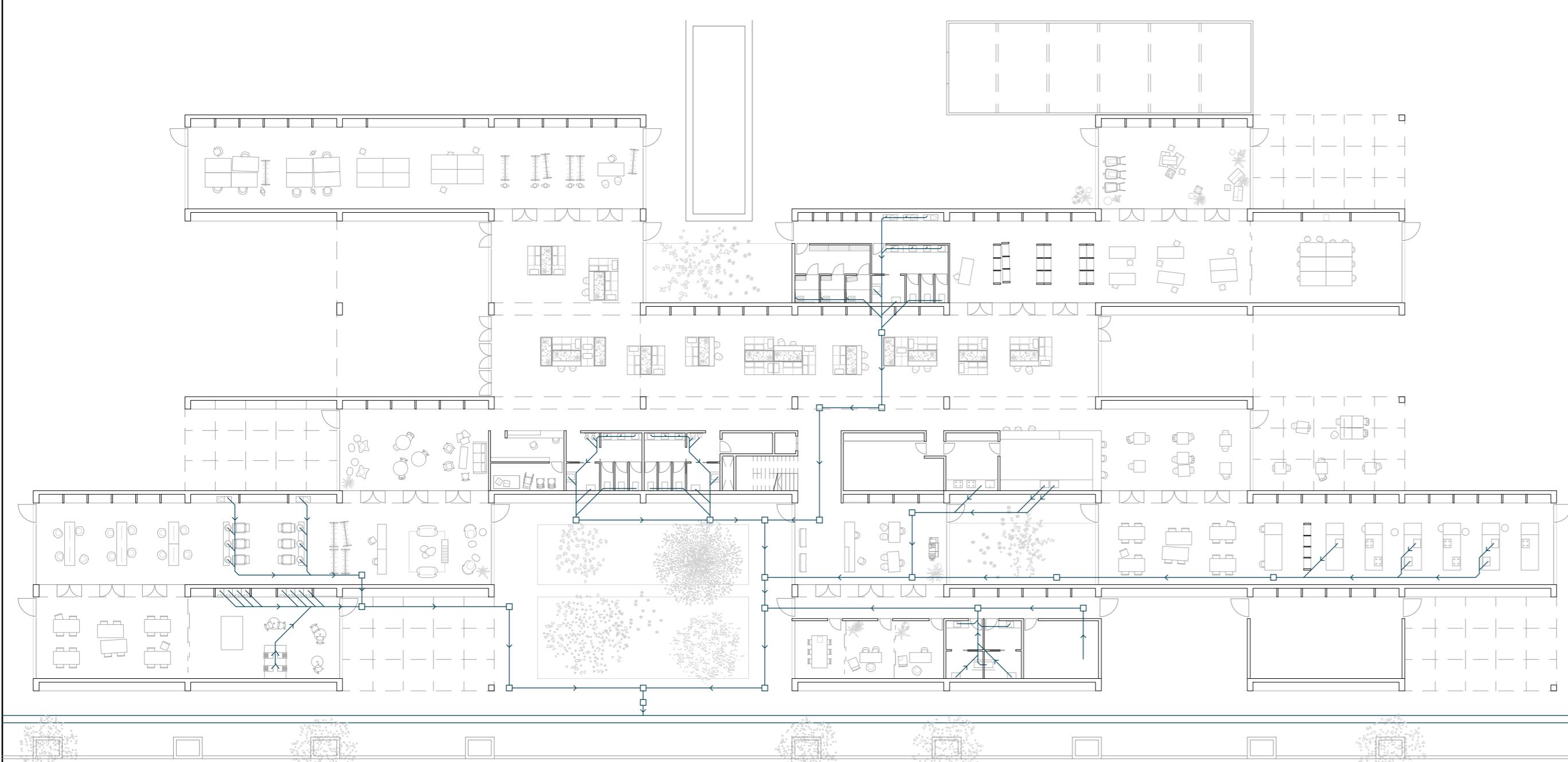
- COLLECTION PVC PIPE Ø110 cm / PTE 2%  
-TURNS 45°  
-MAXIMUM LENGTH 15 METRES
- COLLECTING WATER DIRECTION
- PUBLIC COLLECTION PIPE
- EMERGENCY EXIT
- PVC COLLECTION BOX  
-EACH 15 METRES  
-DIRECTION CHANGES
- PVC COLLECTING PIPE

0 | 5 | 10 | 15 | 20

PIPS SCHEME



COLLECTING AND DRAWING WATER SYSTEM | ACCORDING TO CTE DB HS 5.

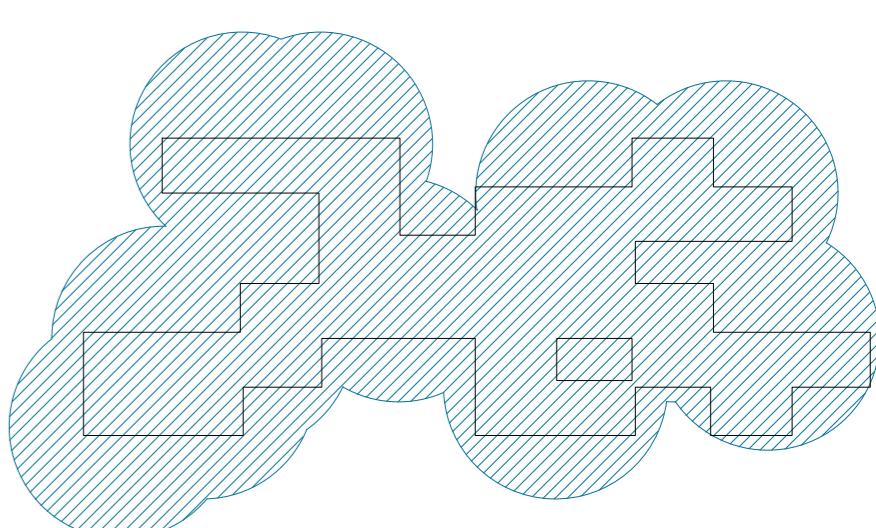
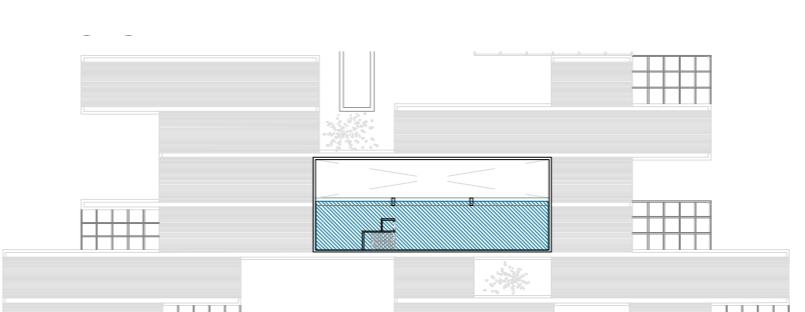
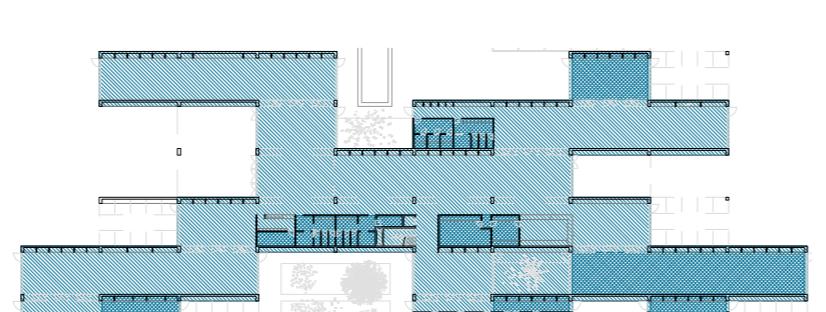


LEGEND

- EVACUATION ROUTE START
- EVACUATION ROUTE + 50 METRES
- EVACUATION DIRECTION ROUTE
- EMERGENCY EXIT
- FIRE EXTINGUISHER 21A-113B
- FULL EQUIPPED FIREPLUG

0 | 5 | 10 | 15 | 20

EVACUATION ROUTE. FIRST FLOOR

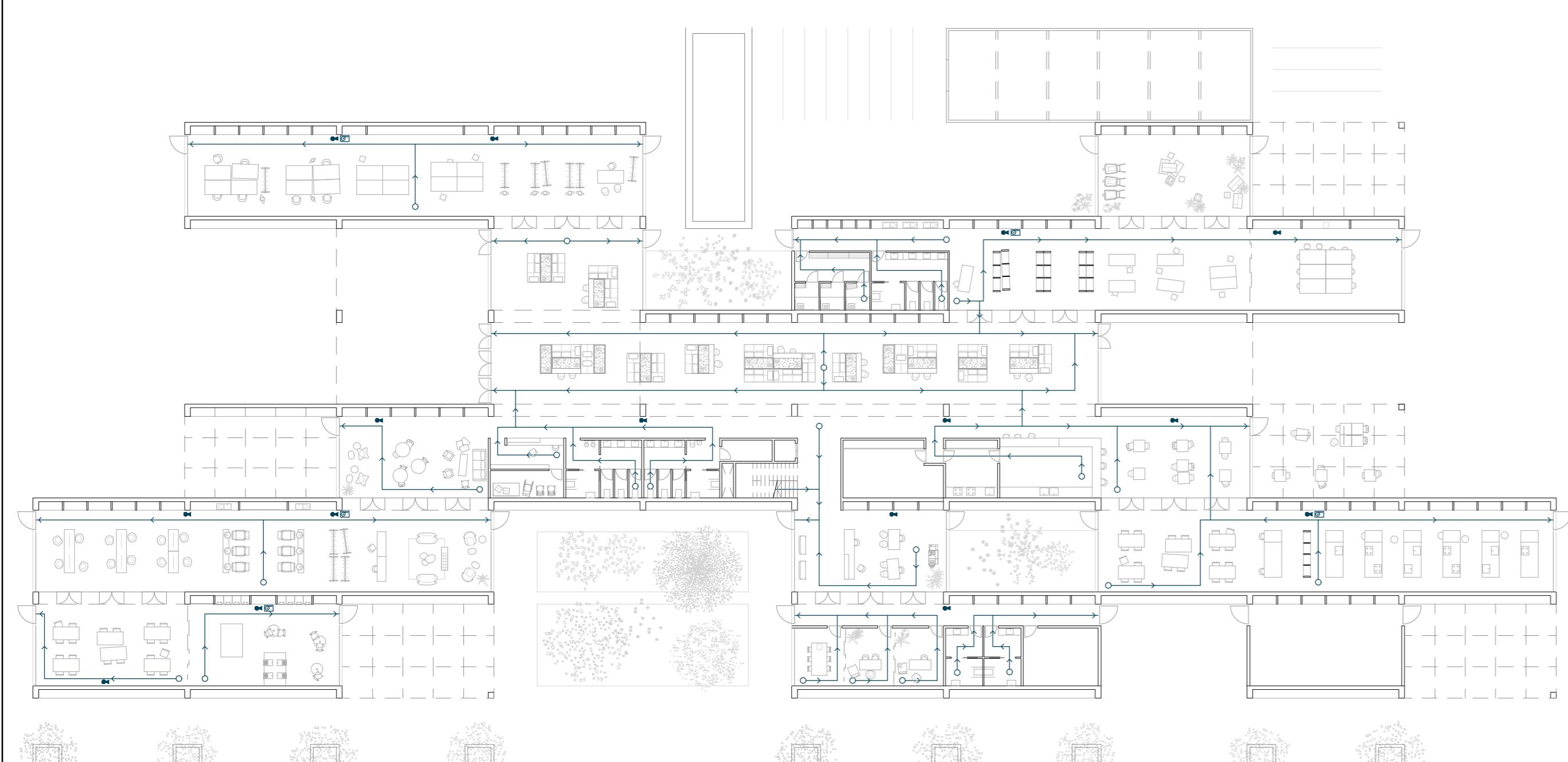


FIRE SECTOR 1. MAIN FLOOR

FIRE SECTOR 1. FIRST FLOOR

FIRE EXTINGUISHER PROTECTION AREA

PROTECTION AGAINST FIRE | ACCORDING TO CTE DB SI.



OCCUPATION

ROOM	SURFACE	DENSITY	OCCUPATION
Common area	413.81 m <sup>2</sup>	10 m <sup>2</sup> /people	42 people
Rest room	68.26 m <sup>2</sup>	2 m <sup>2</sup> /people	35 people
Administration 1	10.91 m <sup>2</sup>	10 m <sup>2</sup> /people	2 people
Storage room	9.64 m <sup>2</sup>	40 m <sup>2</sup> /people	1 people
Cleaning room	5.04 m <sup>2</sup>	0 m <sup>2</sup> /people	0 people
Administration 2	82.95 m <sup>2</sup>	10 m <sup>2</sup> /people	9 people
Office 1-2-3	40.62 m <sup>2</sup>	10 m <sup>2</sup> /people	6 people
Archive	21.75 m <sup>2</sup>	40 m <sup>2</sup> /people	1 people
Administration toilet	20.63 m <sup>2</sup>	3 m <sup>2</sup> /people	7 people
Machine room 1	20.42 m <sup>2</sup>	0 m <sup>2</sup> /people	0 people
Machine room 2	68.25 m <sup>2</sup>	0 m <sup>2</sup> /people	0 people
Cafeteria	103.02 m <sup>2</sup>	1.5 m <sup>2</sup> /people	69 people
Kitchen	12.79 m <sup>2</sup>	10 m <sup>2</sup> /people	2 people
Storage room	26.47 m <sup>2</sup>	40 m <sup>2</sup> /people	1 people
Laundry	68.25 m <sup>2</sup>	5 m <sup>2</sup> /people	14 people
Room	68.25 m <sup>2</sup>	1.5 m <sup>2</sup> /people	46 people
Toilet	44.20 m <sup>2</sup>	3 m <sup>2</sup> /people	15 people
Sewing workshop	204.75 m <sup>2</sup>	5 m <sup>2</sup> /people	41 people
Hairdressing workshop	204.75 m <sup>2</sup>	5 m <sup>2</sup> /people	41 people
Cooking workshop	204.75 m <sup>2</sup>	5 m <sup>2</sup> /people	41 people
Gardening workshop	204.75 m <sup>2</sup>	5 m <sup>2</sup> /people	41 people
Storage	68.25 m <sup>2</sup>	40 m <sup>2</sup> /people	2 people
Changing room	21.32 m <sup>2</sup>	3 m <sup>2</sup> /people	8 people
Toilet	21.20 m <sup>2</sup>	3 m <sup>2</sup> /people	8 people
Library	204.75 m <sup>2</sup>	2 m <sup>2</sup> /people	103 people