#### DIE ES, CAMPS BAY, SOUTH AFRICA - GAWIE FAGAN

AN INTERACTIVE EDUCATIONAL PRODUCT EXPLORING FAGAN'S UNDERSTADING OF COMBINING DESIGN AND TECHNOLOGY INTO A SINGLE, NON-LINEAR, DIVERSE AND INTERESTING PROBLEM-SOLVING METHODOLOGY

DESIGN DRAWINGS

CONSTR. PROCESS

DETAIL DRAWINGS

DETAIL RENDERS

FILM



#### DIE ES, CAMPS BAY, SOUTH AFRICA - GAWIE FAGAN

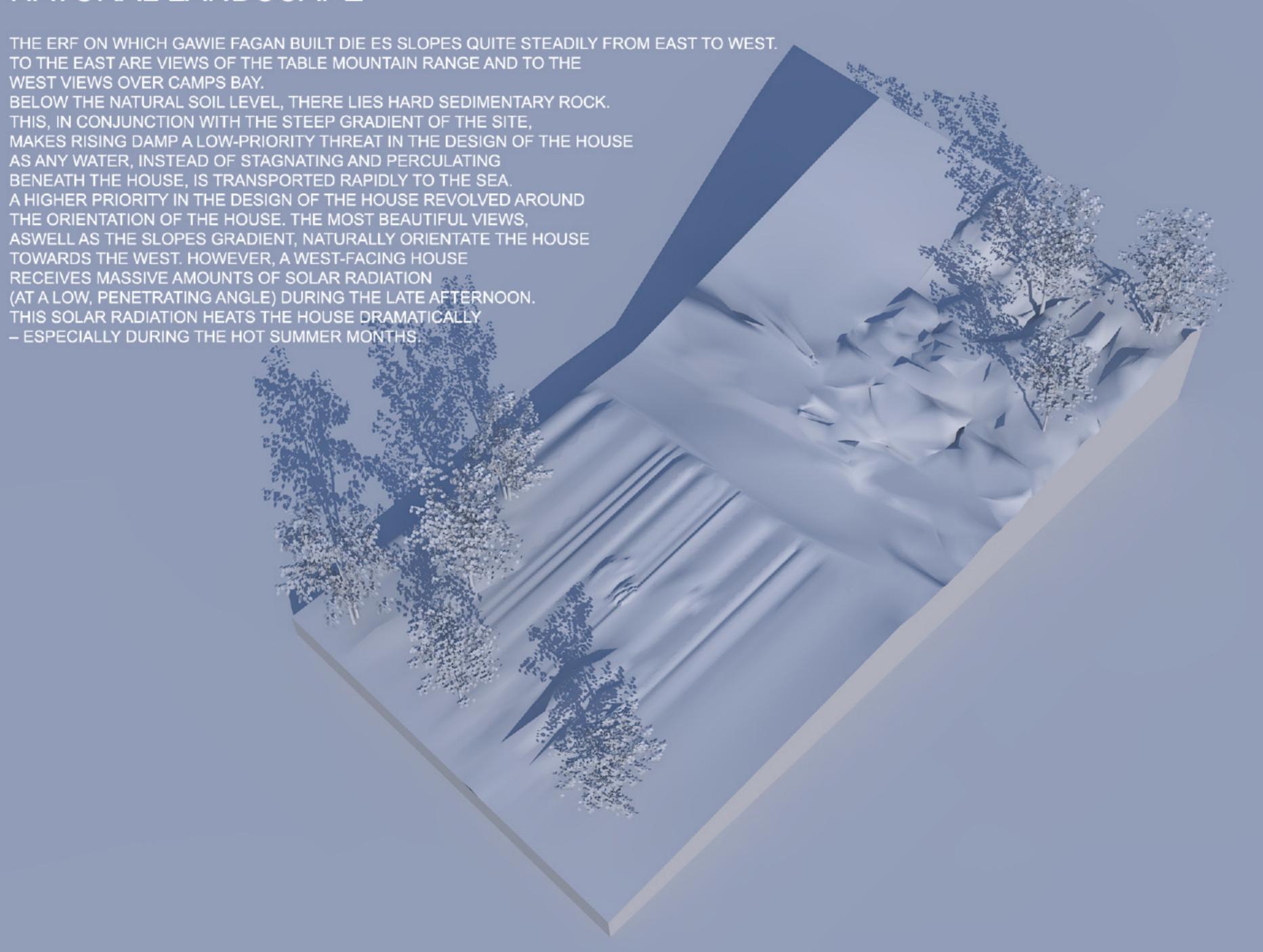
НОМЕ

AN INTERACTIVE EDUCATIONAL PRODUCT EXPLORING FAGAN'S UNDERSTADING OF COMBINING DESIGN AND TECHNOLOGY INTO A SINGLE, NON-LINEAR, DIVERSE AND INTERESTING PROBLEM-SOLVING METHODOLOGY

START

# CONSTR. PROCESS

#### NATURAL LANDSCAPE

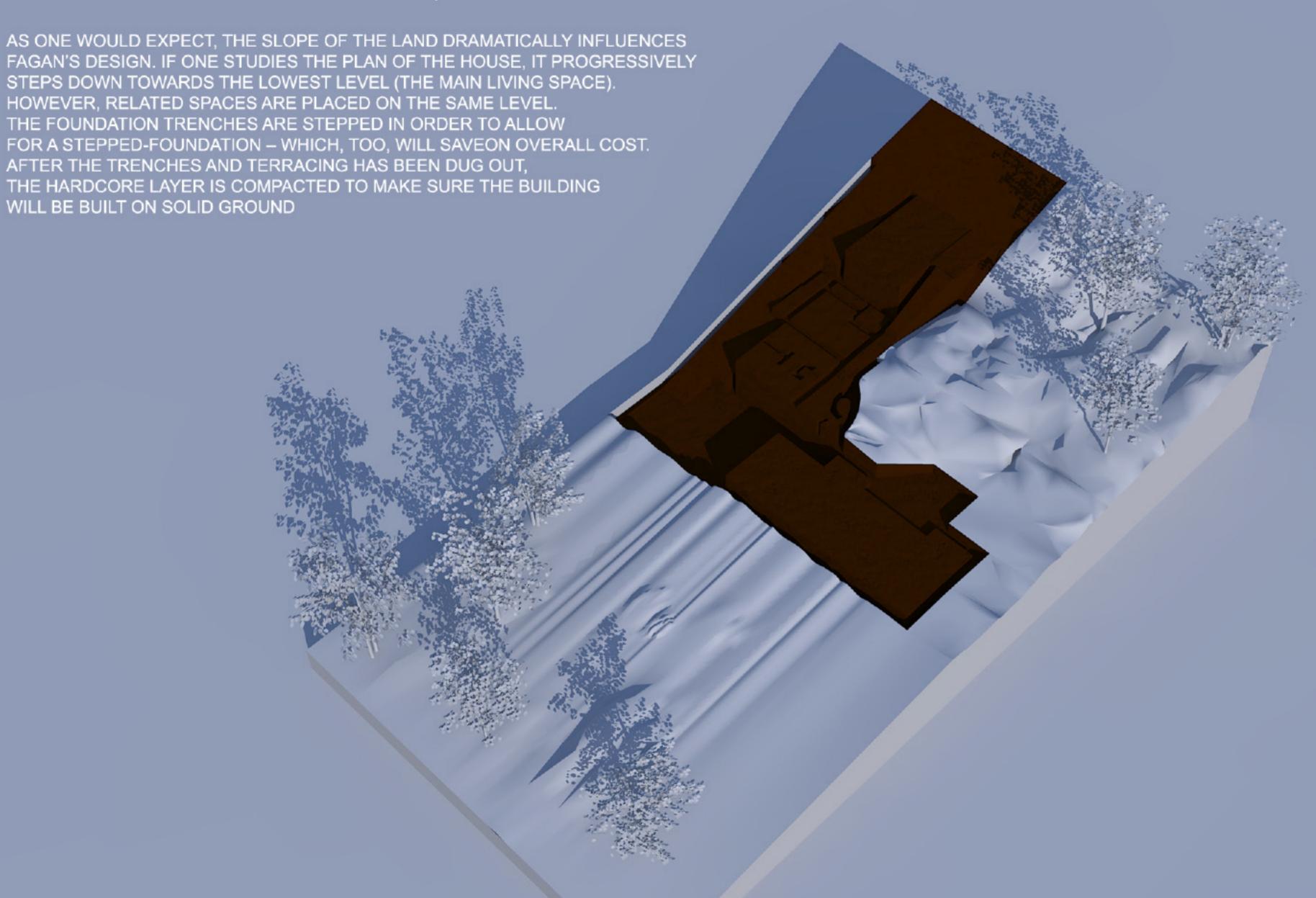




**BACK** 

**NEXT** 

### FOUNDATION TRENCHES, LANDSCAPING AND TERRACING



HOME

**BACK** 

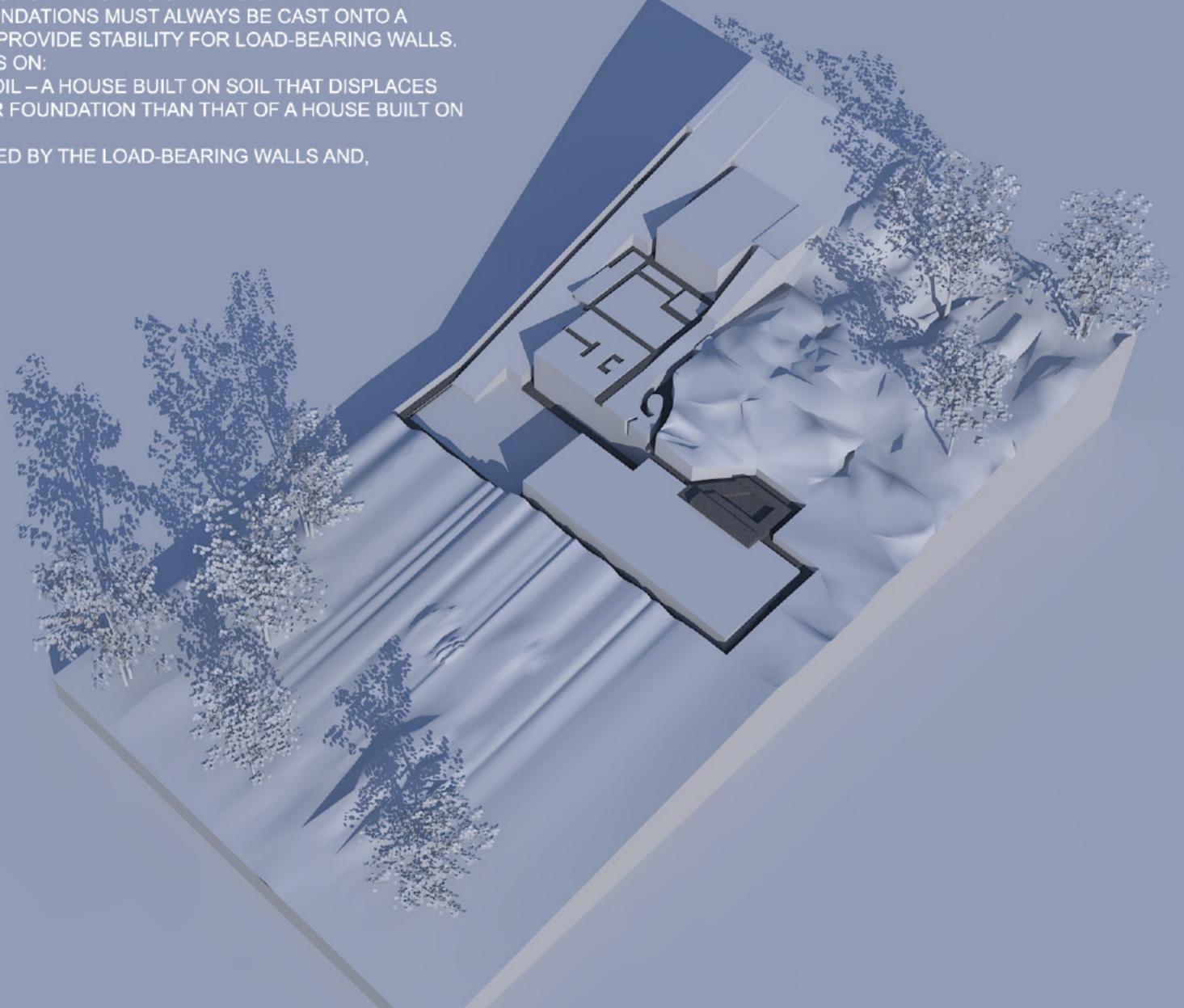
**NEXT** 

#### FOUNDATION

THE FOUNDATION IS CAST IN SITU AND IS DESIGNED TO STEP WITH THE GRADIENT OF THE LAND. FOUNDATIONS MUST ALWAYS BE CAST ONTO A FLAT SURFACE IN ORDER TO PROVIDE STABILITY FOR LOAD-BEARING WALLS. A FOUNDATION SIZE DEPENDS ON:

 THE STRENGTH OF THE SOIL – A HOUSE BUILT ON SOIL THAT DISPLACES EASILY REQUIRES A WIDER FOUNDATION THAN THAT OF A HOUSE BUILT ON A FIRMER SOIL TYPE.

• THE WEIGHT TO BE CARRIED BY THE LOAD-BEARING WALLS AND, THUS, THE FOUNDATION



HOME

DIAG.

ACAD

**BACK** 

**NEXT** 

#### LOAD-BEARING CONCRETE ELEMENTS

THE GROUND FLOOR, VERTICAL CONCRETE ELEMENTS IN THE CASE OF DIE ES ARE MULTI-FUNCTIONAL THEY ACT SPACERS OR GUIDES TO THE BRICKLAYER IN HOW TO LAY HIS WALLS THEY ACT AS JOINTS BETWEEN ADJOINING BRICK WALLS WHERE AN ODD CORNER DETAIL HAS BEEN DESIGNED BY FAGAN THEY ACT AS LOAD-BEARING ELEMENTS TO SUPPORT CONCRETE ROOF AND FLOOR SLABS IN USING CONCRETE IN CONJUNCTION WITH BRICK, SPECIAL CONSIDERATIONMUST BE TAKEN FOR THE EXPANSION OF BRICK VERSUS THE CONTRATION OF CONCRETE OVER TIME. THIS CONTRACTION AND EXPANSION CAN RESULT IN HAIRLINE CRACKS OR STRUCTURAL INSTABILITY

HOME

DIAG.

ACAD

**BACK** 

**NEXT** 

#### PLINTH WALL

THE PLINTH WALL IS GENERALLY A SUBTERRANEAN WALL WHICH TRANFERS LOAD FROM THE SUPERFICIAL WALLS TO THE FOUNDATION. BY AND LARGE, EXTRA STRENGTHENED BRICKS ARE USED FOR THE PLINTH WALL TO PREVENT DAMAGE THROUGH EXPOSURE TO DAMP AND SUBTERRANEAN INFESTATION. THIS IS ESPECIALLY THE CASE IN TODAY'S WORLD, WHERE BRICKS ARE NOT LEFT TO MATURE FOR VERY LONG. HOWEVER, FAGAN'S DIE ES MAKES USE OF THE SAME STRENGTH BRICK FOR BOTH THE SUBTERRANEAN PLINTH WALL, AS WELL AS THE SUPERFICIAL LOAD-BEARING WALLS IN ORDER TO MAKE SURE HIS BRICKS WERE AT MAXIMUM STRENGTH WHEN BUILDING COMMENCED, FAGAN LEFT THE BRICKS WITH WHICH THE HOUSE WAS TO BE BUILT ON SITE, IN OPEN WEATHER, FOR A YEAR. THE AGING OF THE BRICKS WAS MULTI-FUNCTIONAL: DURING THE TIME OF EXPOSURE, THE BRICKS ABSORBED AND TRANSPIRED WATER, AS WELL AS UNDERWENT CHANGES IN TEMPERATURE. THIS EXPOSURE TO THE ELEMENTS WAS CRUCIAL IN MAKING SURE THE BRICKS WERE STRENGTHENED BEFORE BEING PUT UNDER ANY LOAD-BEARING SITUATIONS BY EXPOSING THE BRICKS TO THE ELEMENTS AND THEREIN STRENGTHENING THEM -FAGAN WAS ABLE TO SAVE ON MATERIAL COSTS AS EXTREMELY FIREHARDENED BRICKS WERE NOT NECCESSARY IN AGING THE BRICKS, SEPERATE BRICKS FOR THE PLINTH WALLS AND SUPERFICIAL LOAD-BEARING WALLS WERE NOT NECCESSARY. THIS ALSO REDUCED THREAT OF EPANSION AND CONTRACTION PROBLEMS. AS WELL AS SIMPLIFIED **BUILDING OF WALLS OF** SUCH A SLOPED SITE

HOME

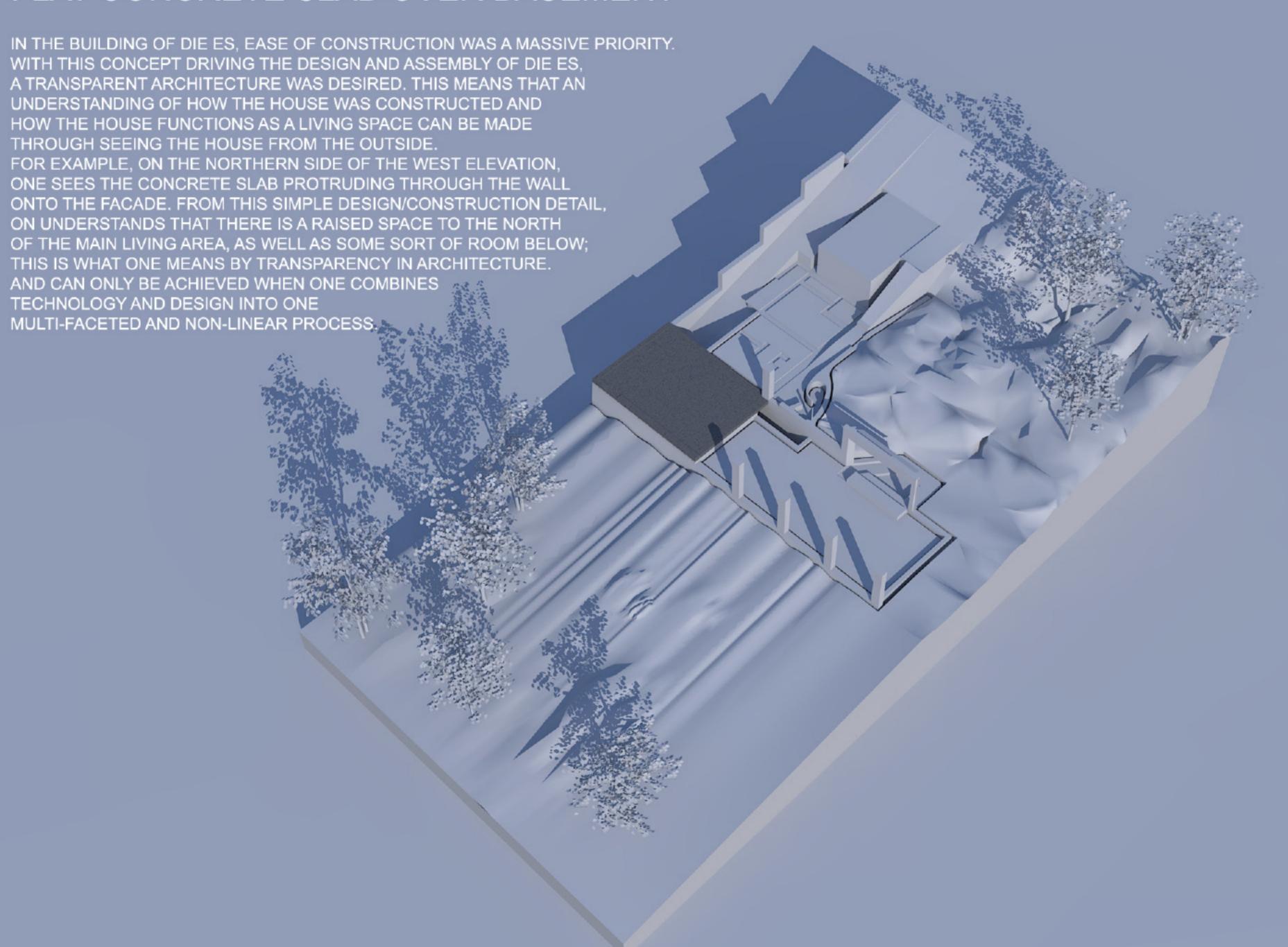
DIAG.

ACAD

**BACK** 

**NEXT** 

#### FLAT CONCRETE SLAB OVER BASEMENT



HOME

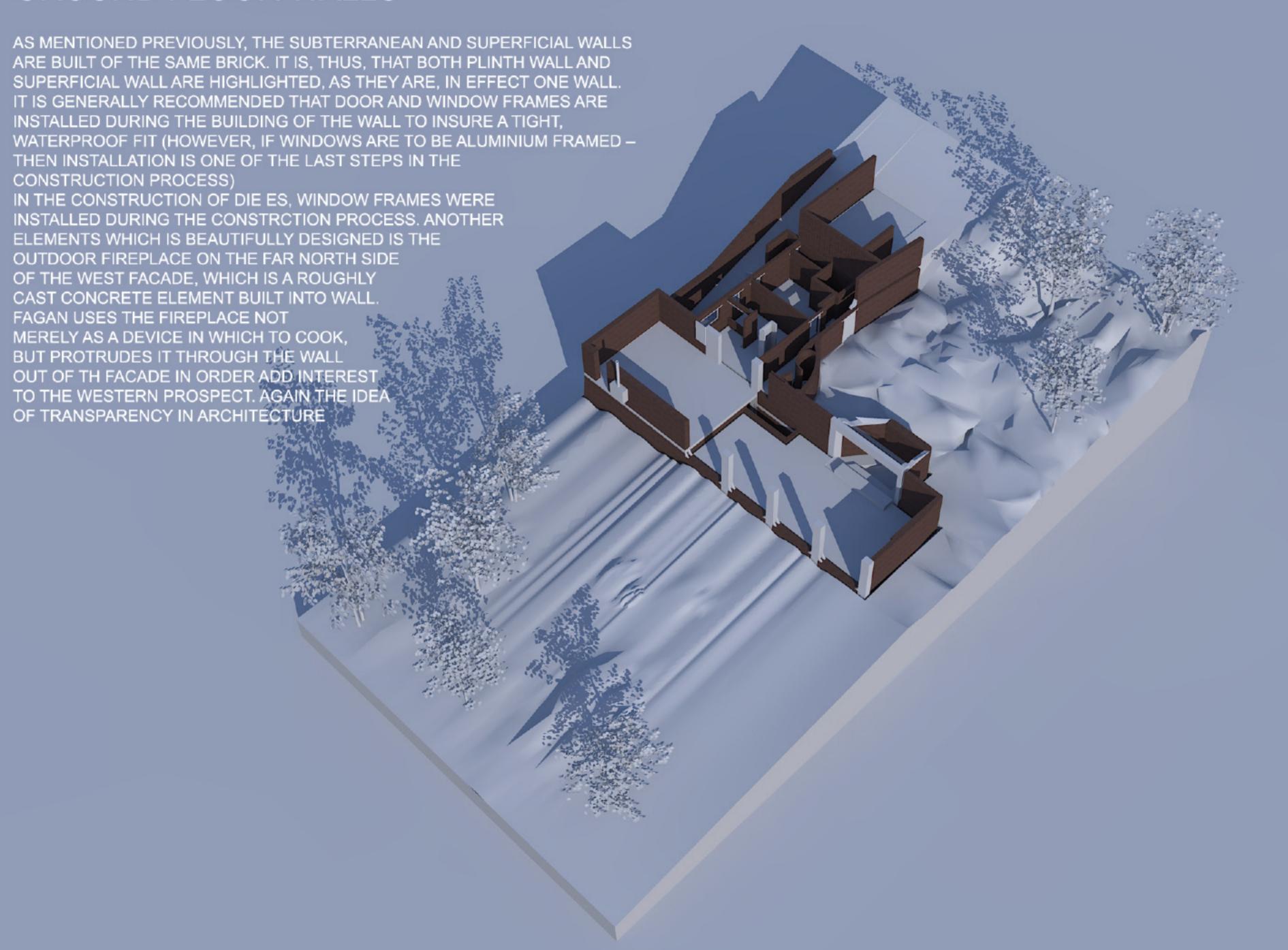
DIAG.

ACAD

**BACK** 

**NEXT** 

#### **GROUND FLOOR WALLS**



HOME

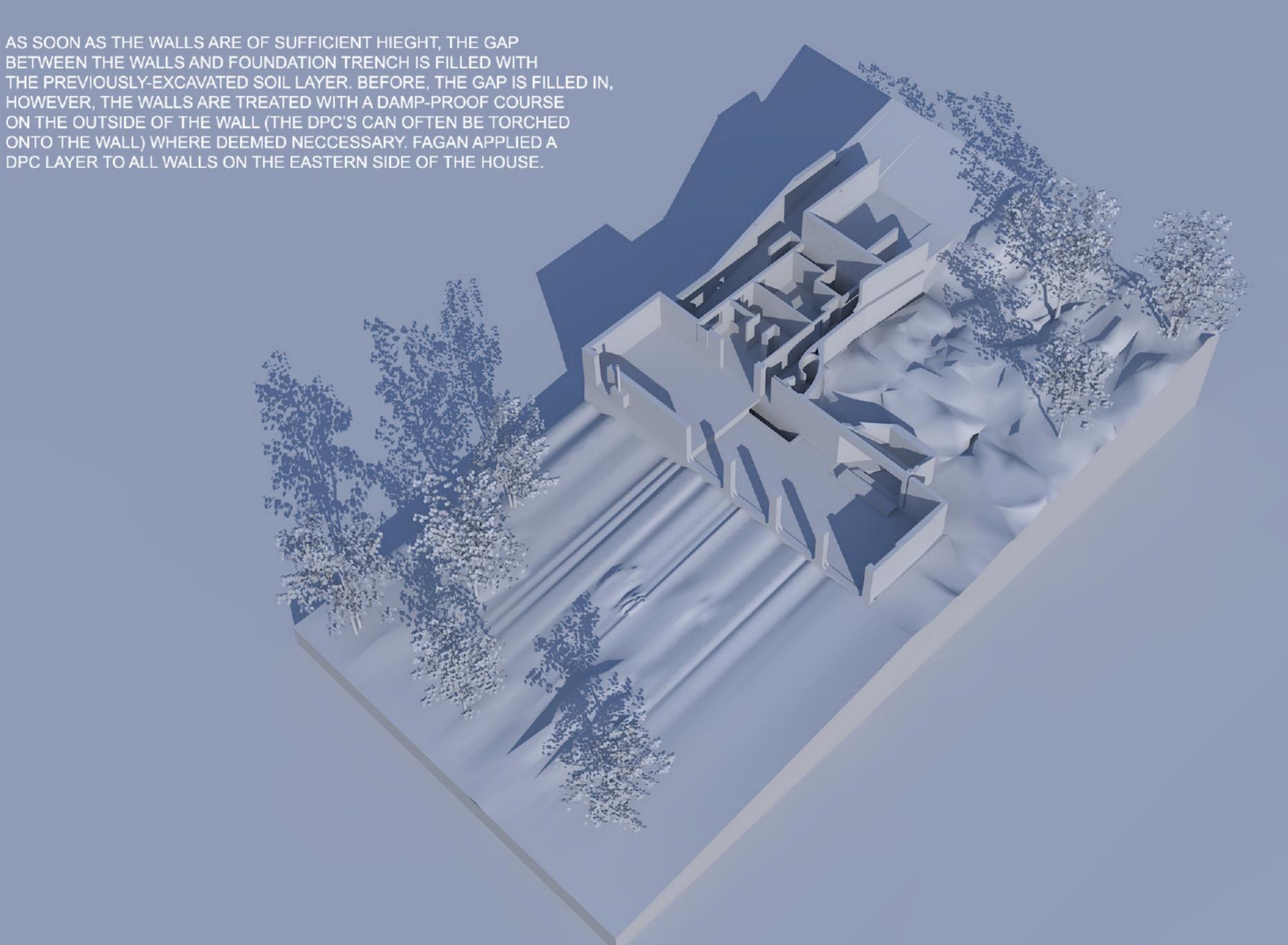
DIAG.

ACAD

**BACK** 

**NEXT** 

#### FILL IN



HOME

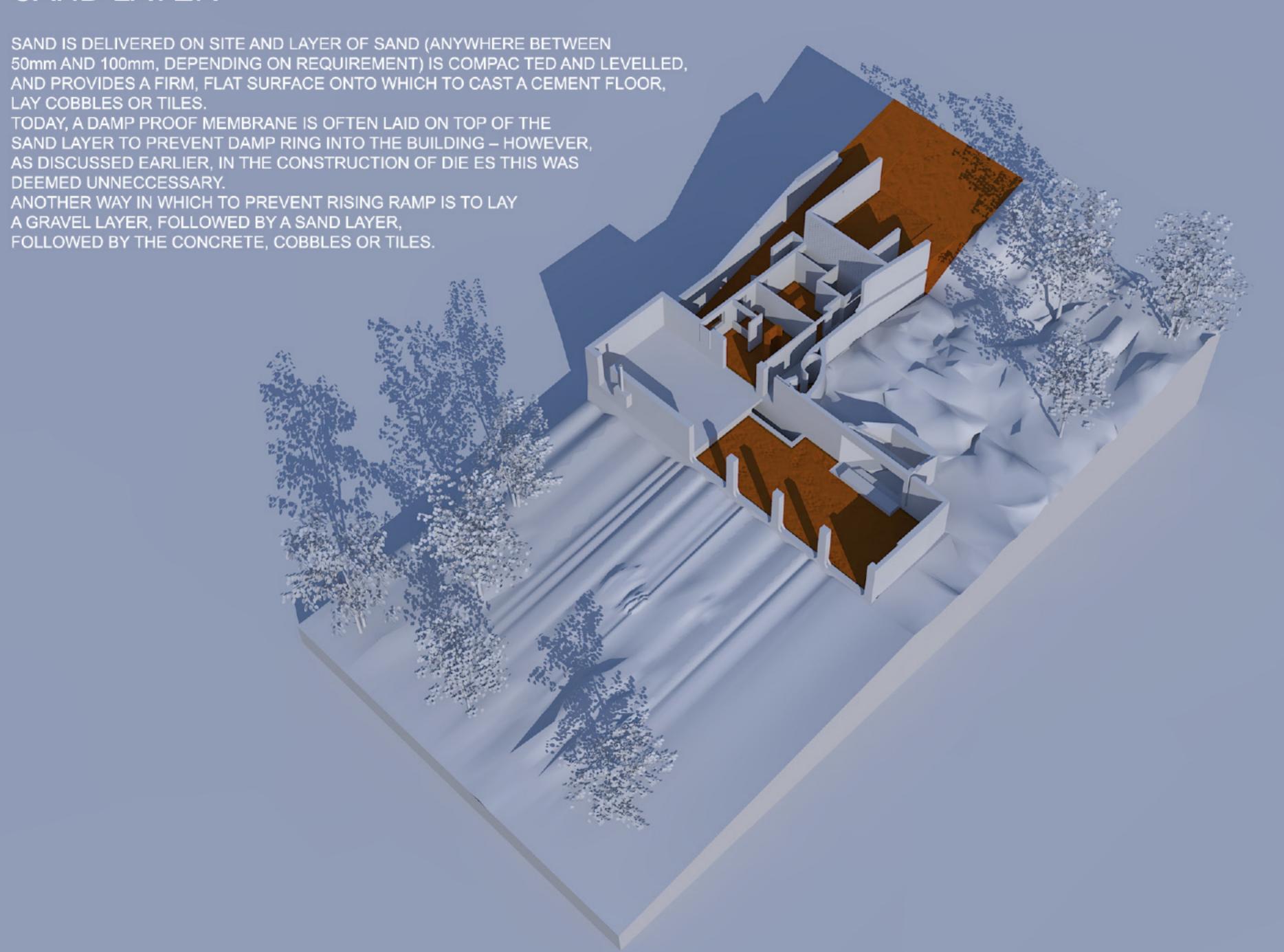
DIAG.

ACAD

**BACK** 

**NEXT** 

#### SAND LAYER



HOME

DIAG.

ACAD

**BACK** 

**NEXT** 

#### CONCRETE AND COBBLING

AS MENTIONED IN THE PREVIOUS SLIDE, THE CONCRETE IS CAST AND COBBLES ARE LAID IN ORDER TO PROVIDE A CLEAN FLOOR TO THE HOUSE. HOWEVER, THE LIVING ROOMS AND KITCHEN ARE NOT TILED YET, AS A DROPPED HAMMER OR AY SORT EQUIPMENT COULD POTENTIALLY DAMAGE THE TILINGDURING THE CONSTRUCTION OF TH BUILDING.

HOME

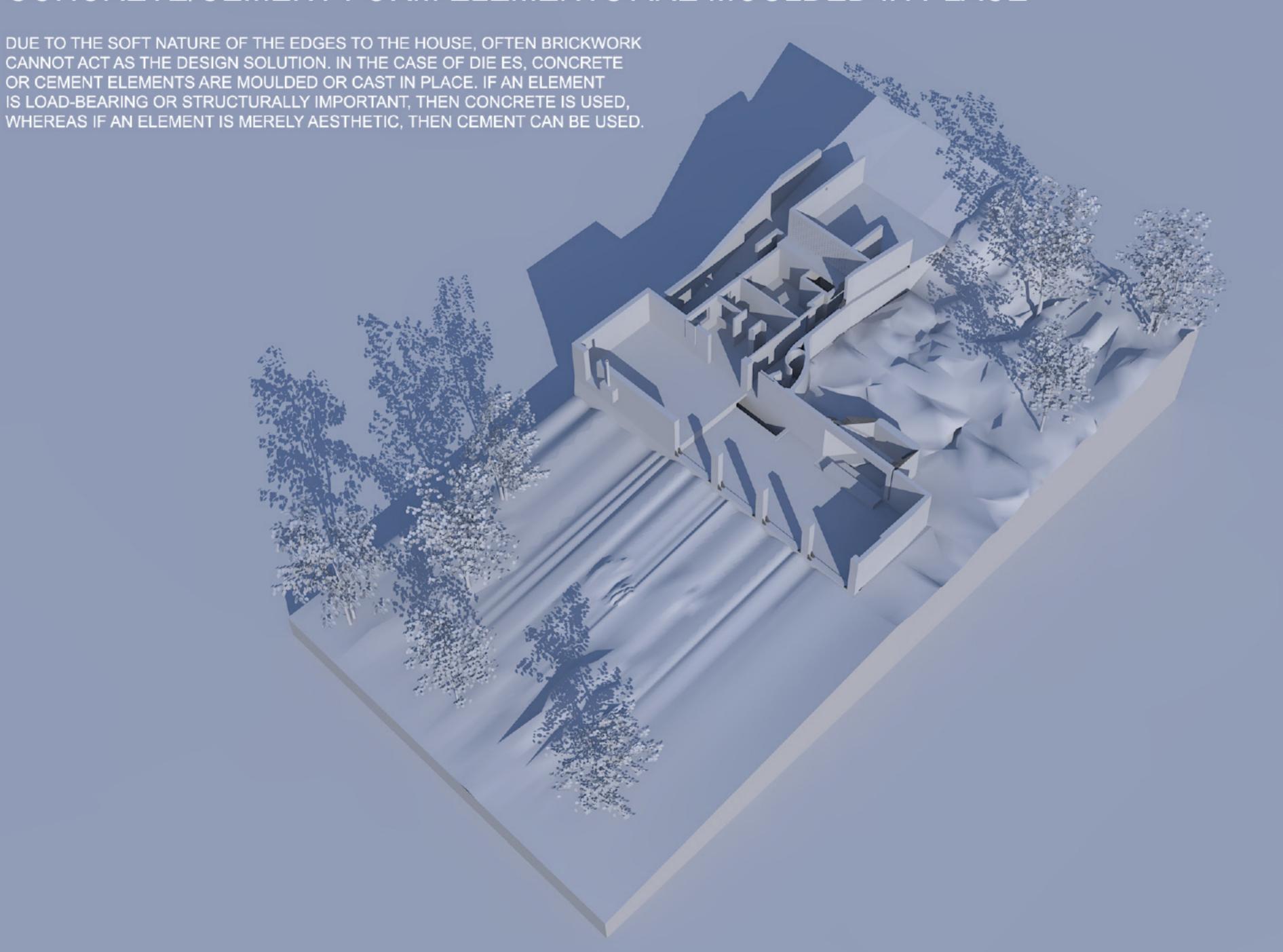
DIAG.

ACAD

**BACK** 

**NEXT** 

#### CONCRETE/CEMENT FORM ELEMENTS ARE MOULDED IN PLACE



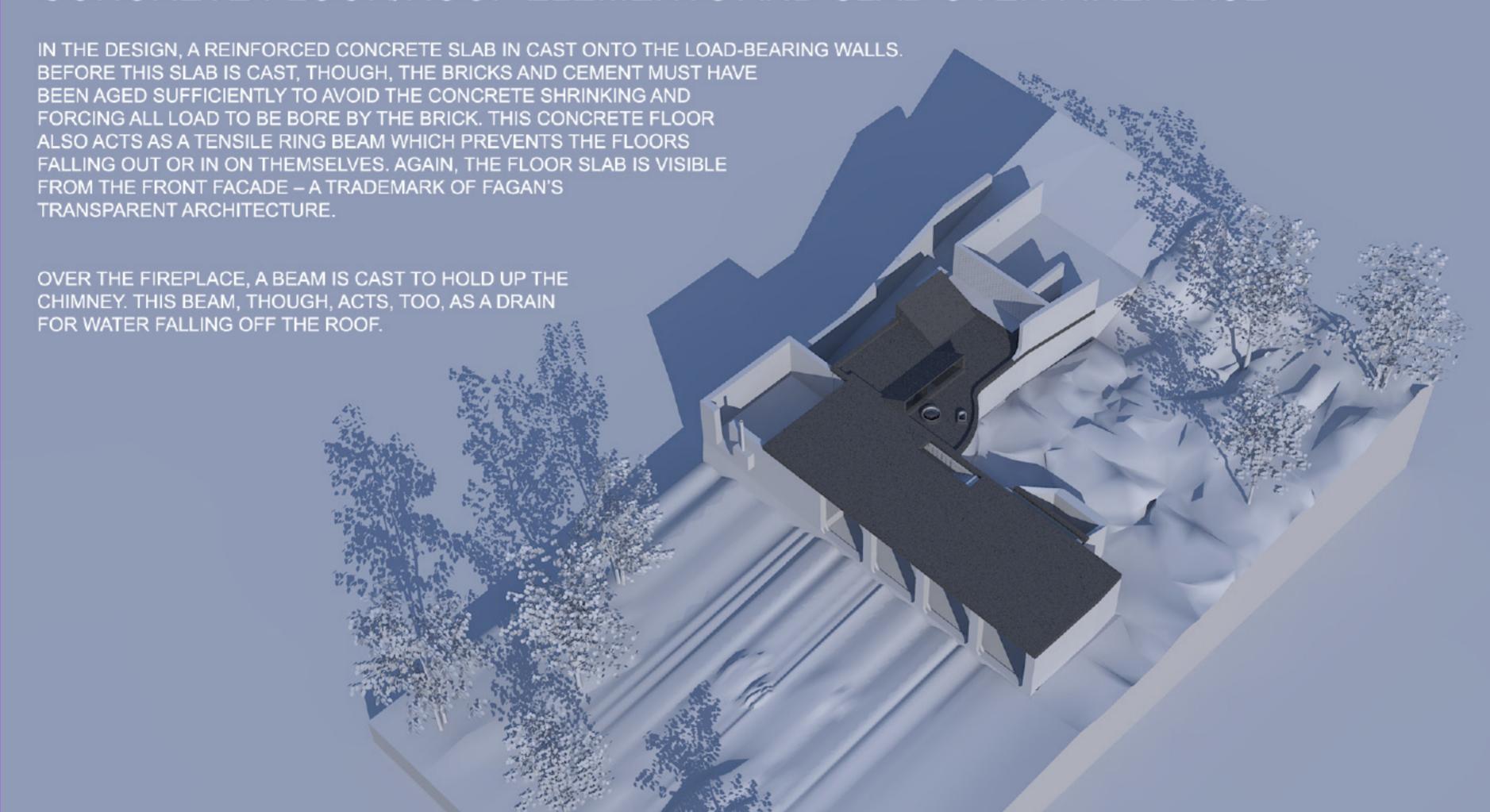
HOME

DIAG.

**BACK** 

**NEXT** 

#### CONCRETE FLOOR/ROOF ELEMENTS AND SLAB OVER FIREPLACE



HOME

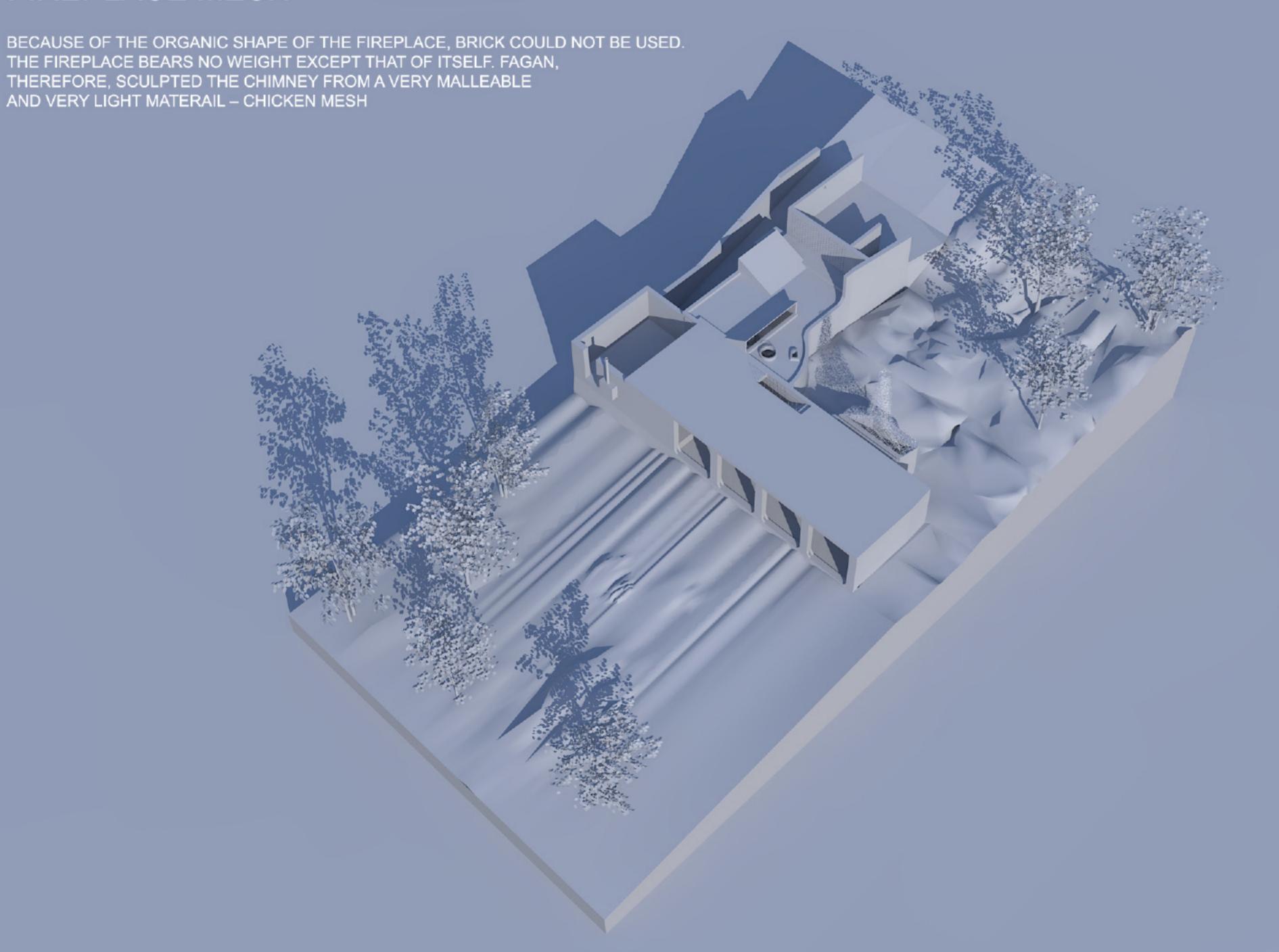
DIAG.

ACAD

**BACK** 

**NEXT** 

#### FIREPLACE MESH



HOME

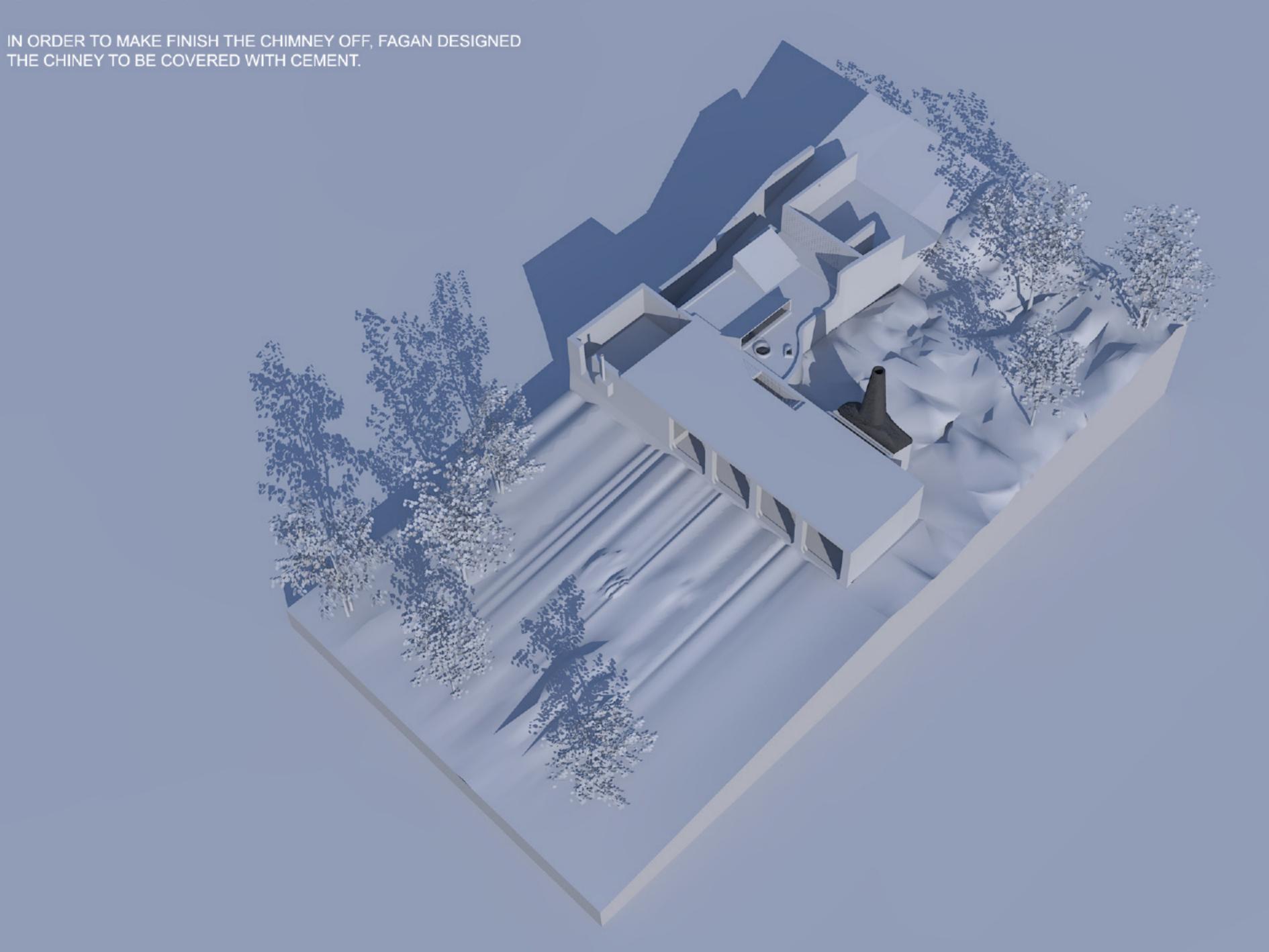
DIAG.

ACAD

**BACK** 

**NEXT** 

### CEMENT COVERING OF FIREPLACE



HOME

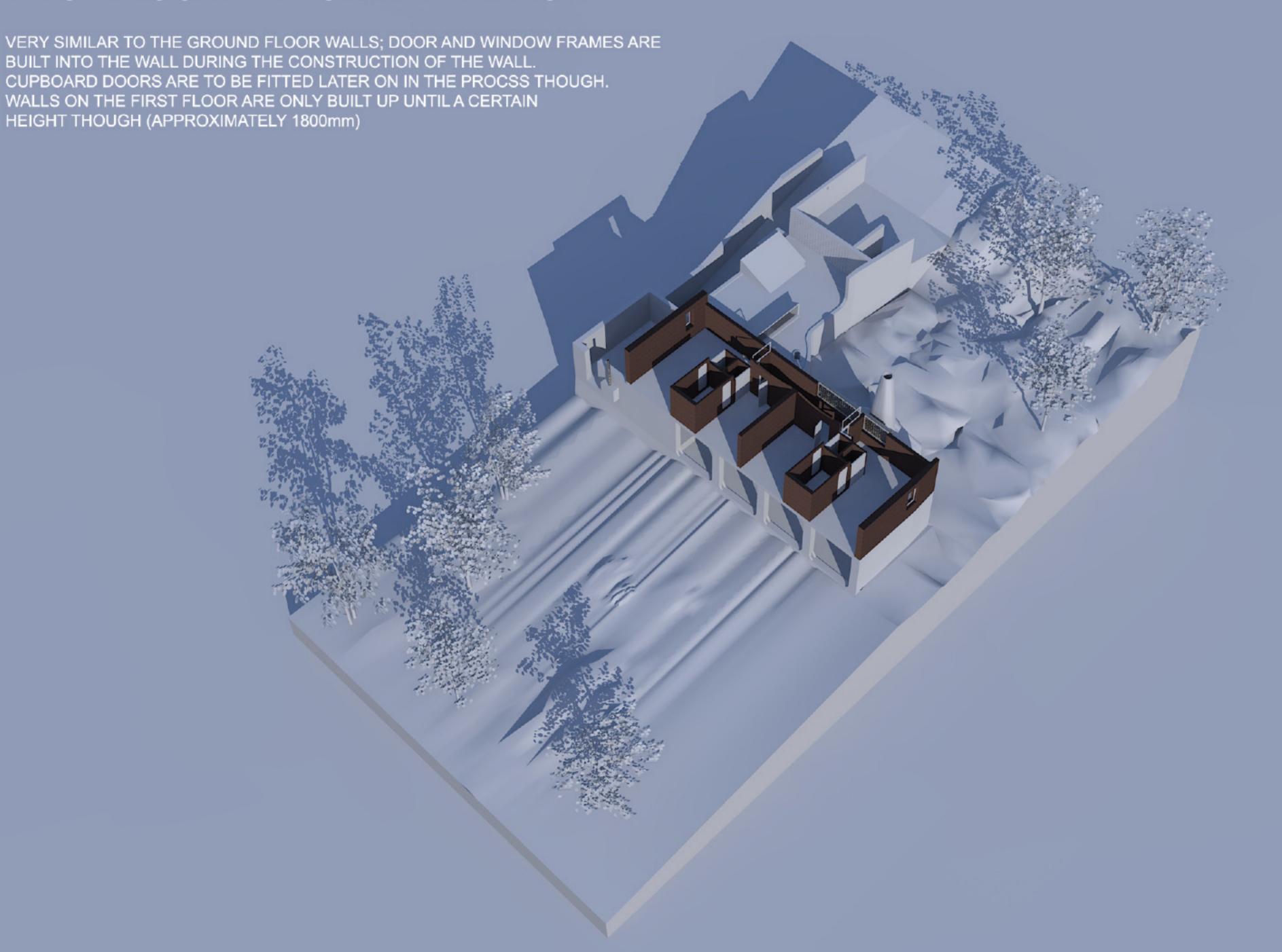
DIAG.

ACAD

**BACK** 

**NEXT** 

#### FIRST FLOOR WALLS AND FRAMES



HOME

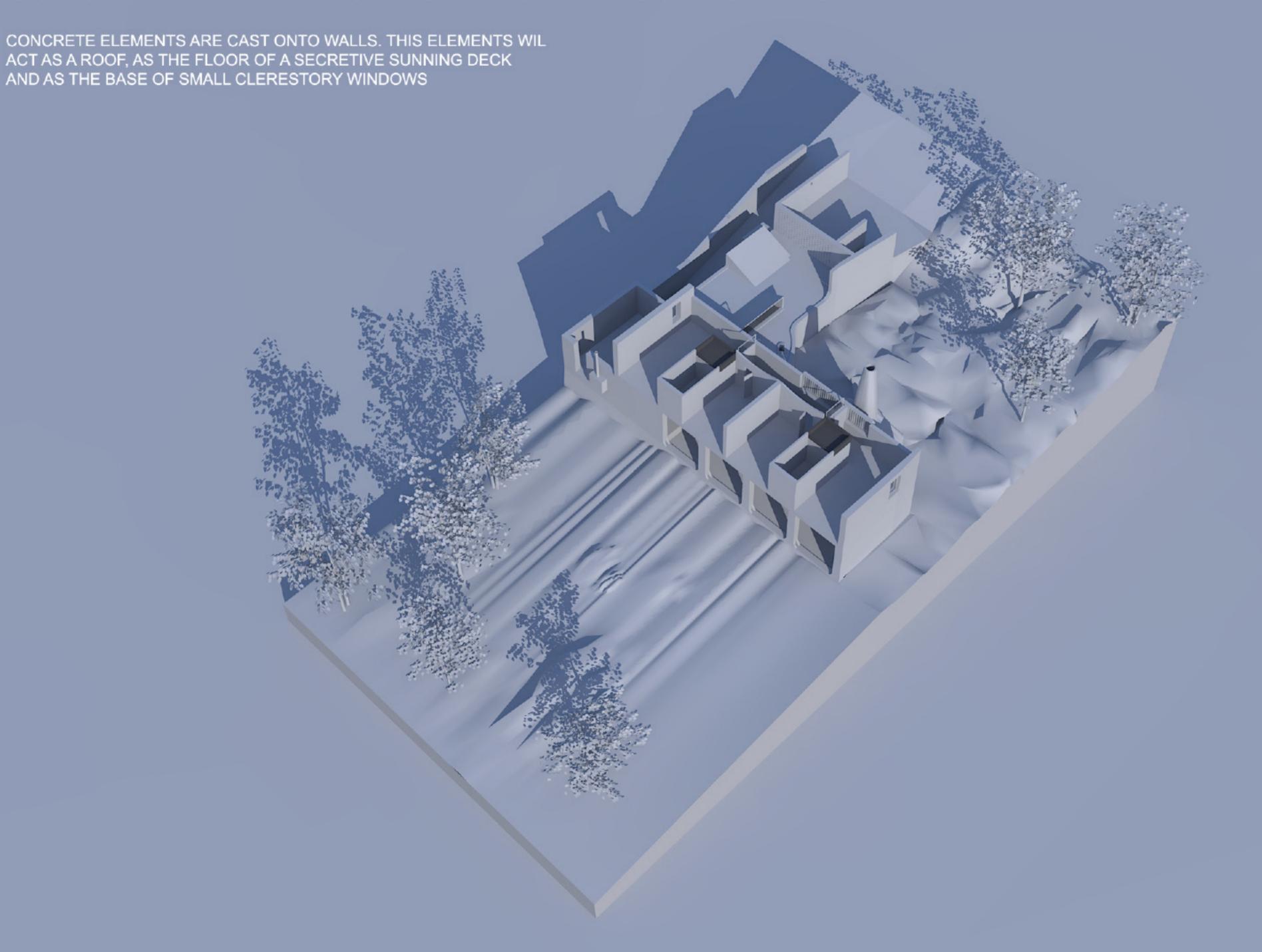
DIAG.

ACAD

**BACK** 

**NEXT** 

#### CONCRETE ELEMENTS ABOVE BUILT IN CUPBOARDS



HOME

DIAG.

ACAD

**BACK** 

**NEXT** 

#### MAIN WOODEN BEAMS

THESE WOODEN BEAMS ARE BUILT INTO THE WALLS DURING TH CONSTRUCTION OF THE WALLS AND ARE, THEREFORE, ANCHORED INTO POSITION BY THE WALLS THEMSELVES. THESE BEAMS CARRY THE ROOF STRUCTURES ABOVE THEM

HOME

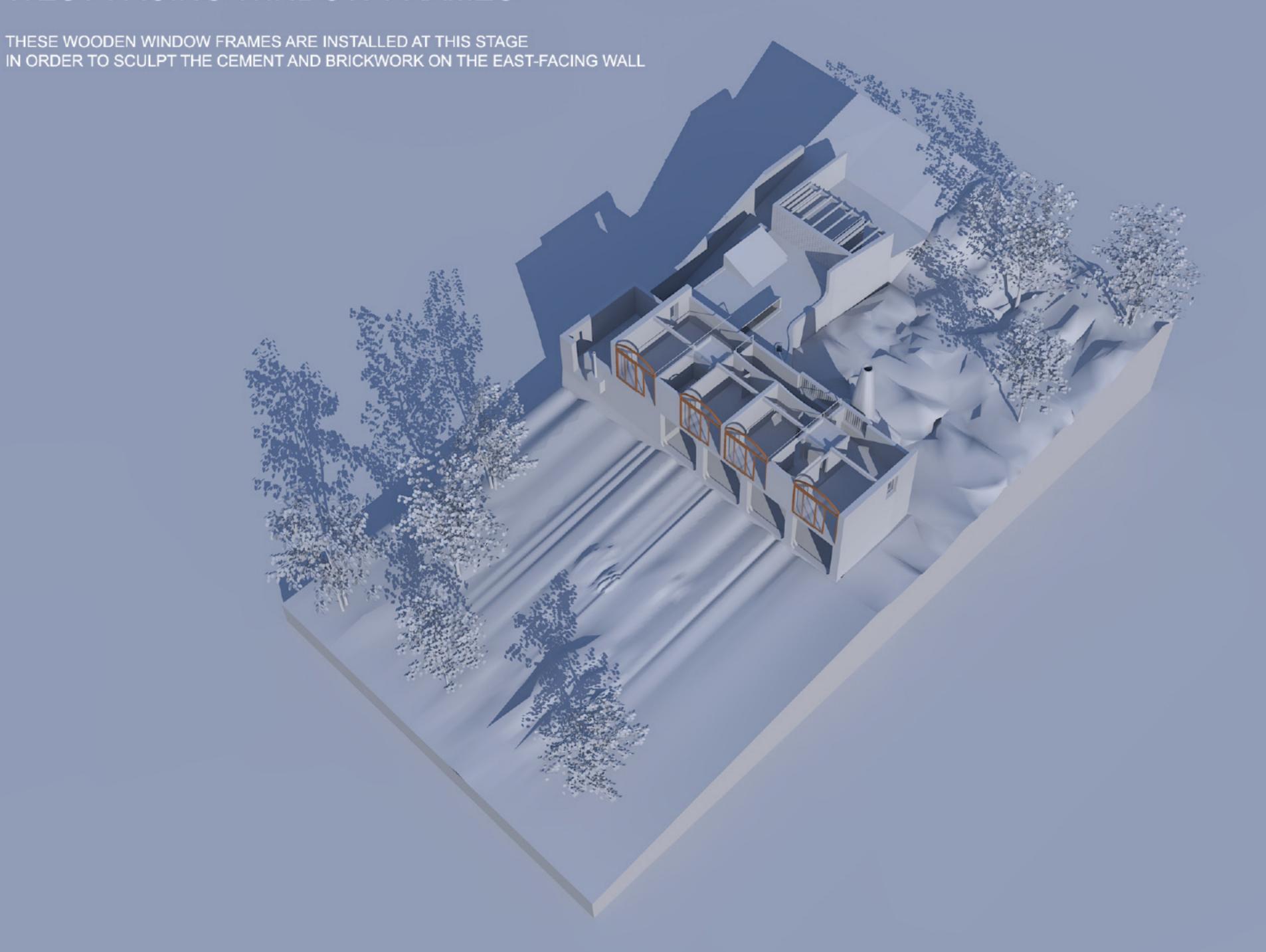
DIAG.

ACAD

**BACK** 

**NEXT** 

#### WEST-FACING WINDOW FRAMES



HOME

DIAG.

**BACK** 

**NEXT** 

#### CEMENT AND BRICKWORK SCULPTED

BRICK AND CEMENT IN ORDER TO ACCOMODATE FOR THE CURVED ROOF. THIS PART OF THE WALL DOESN'T HAVE TO BE AS STRONG AS WALLS LOWER DOWN, SEEING AS THOUGH THIS SEGMENT DOESN'T BEAR AS MUCH WEIGHT; IT MERELY CARRIES THE ROOF, WHEREAS THE GROUND FLOOR WALLS CARRY CONCRETE SLABS, FIRST FLOOR WALLS AND THE ROOF

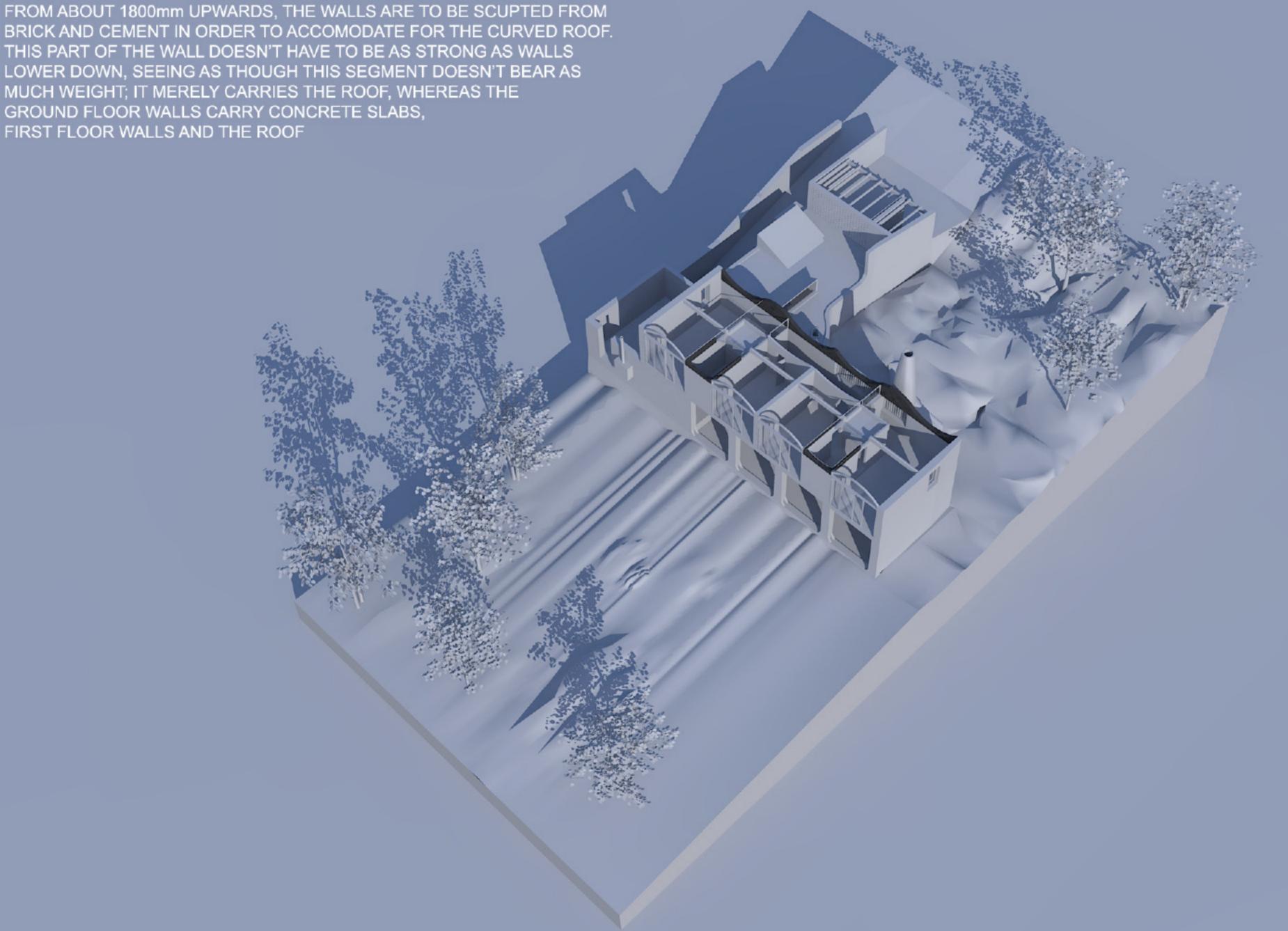
HOME

DIAG.

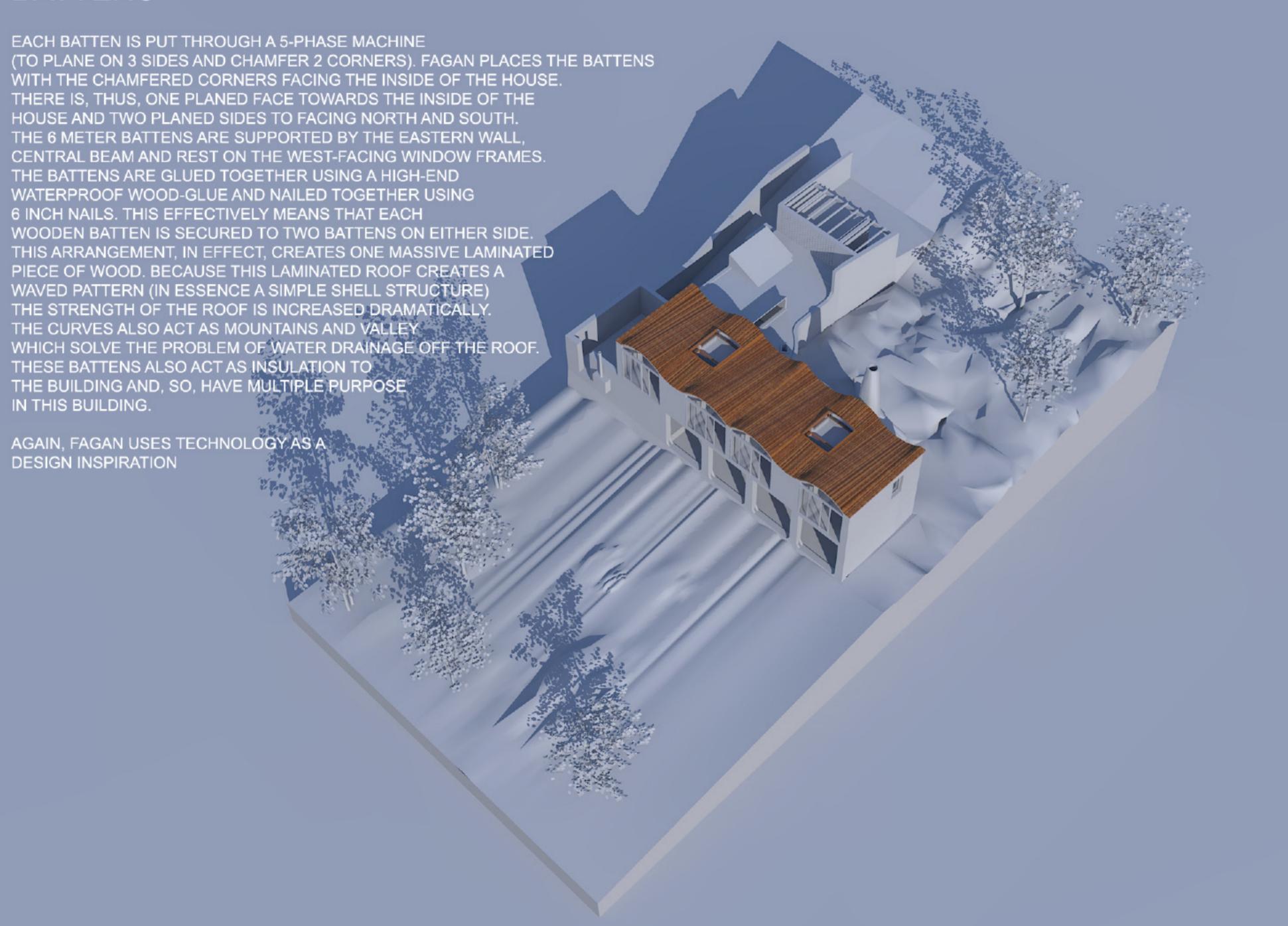
ACAD

**BACK** 

**NEXT** 



#### **BATTENS**



HOME

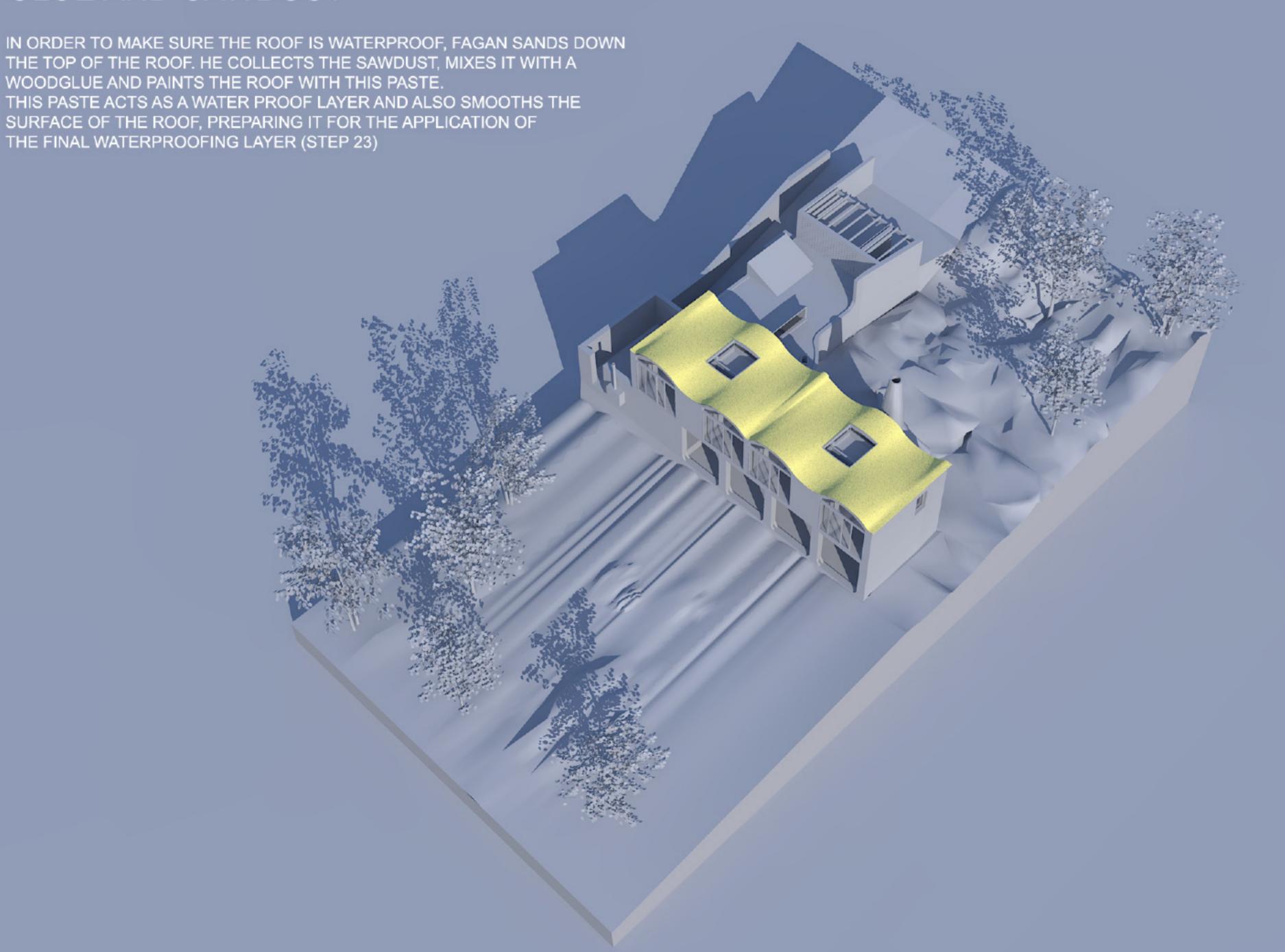
DIAG.

ACAD

**BACK** 

**NEXT** 

#### GLUE AND SAWDUST



HOME

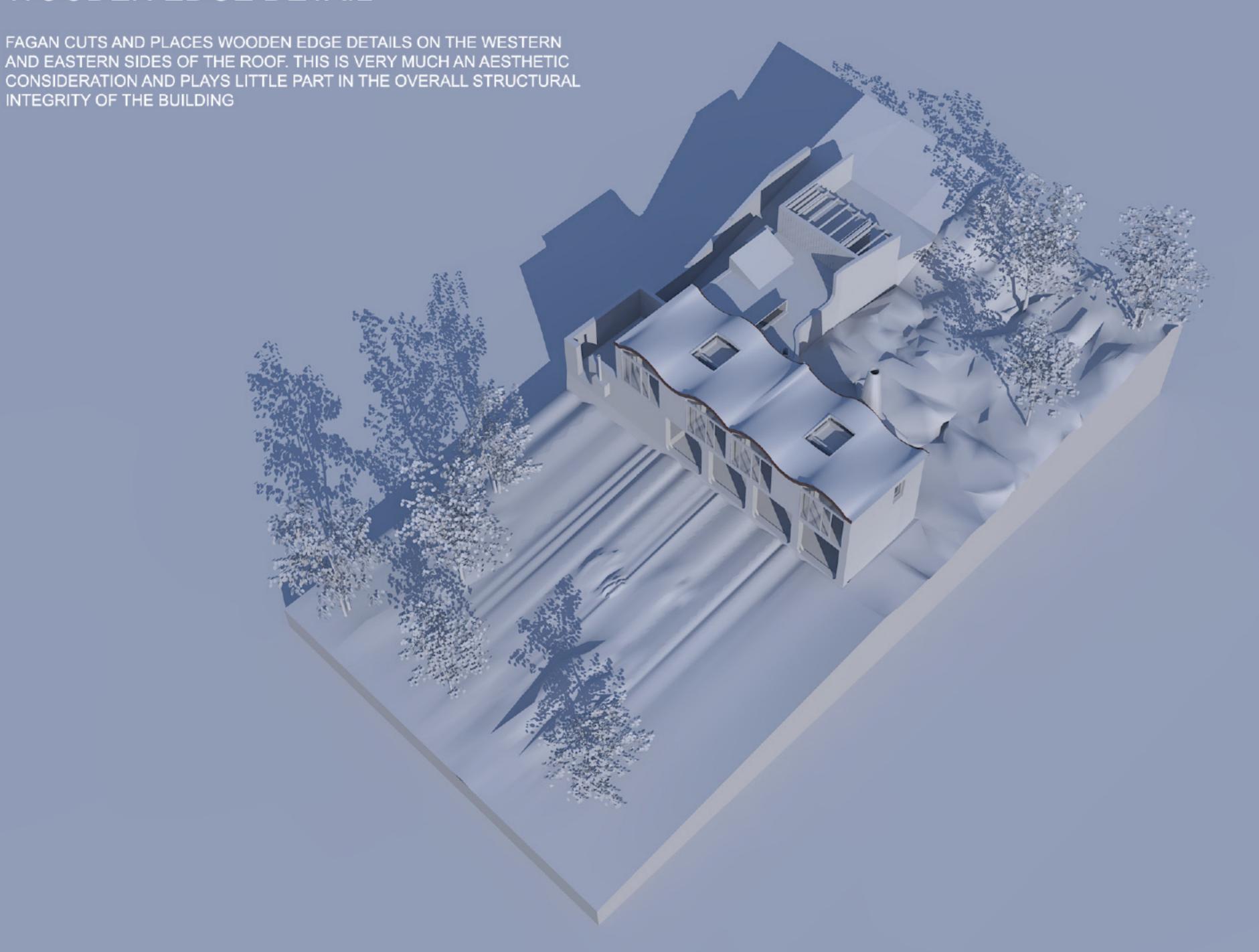
DIAG.

ACAD

**BACK** 

**NEXT** 

#### WOODEN EDGE DETAIL



HOME

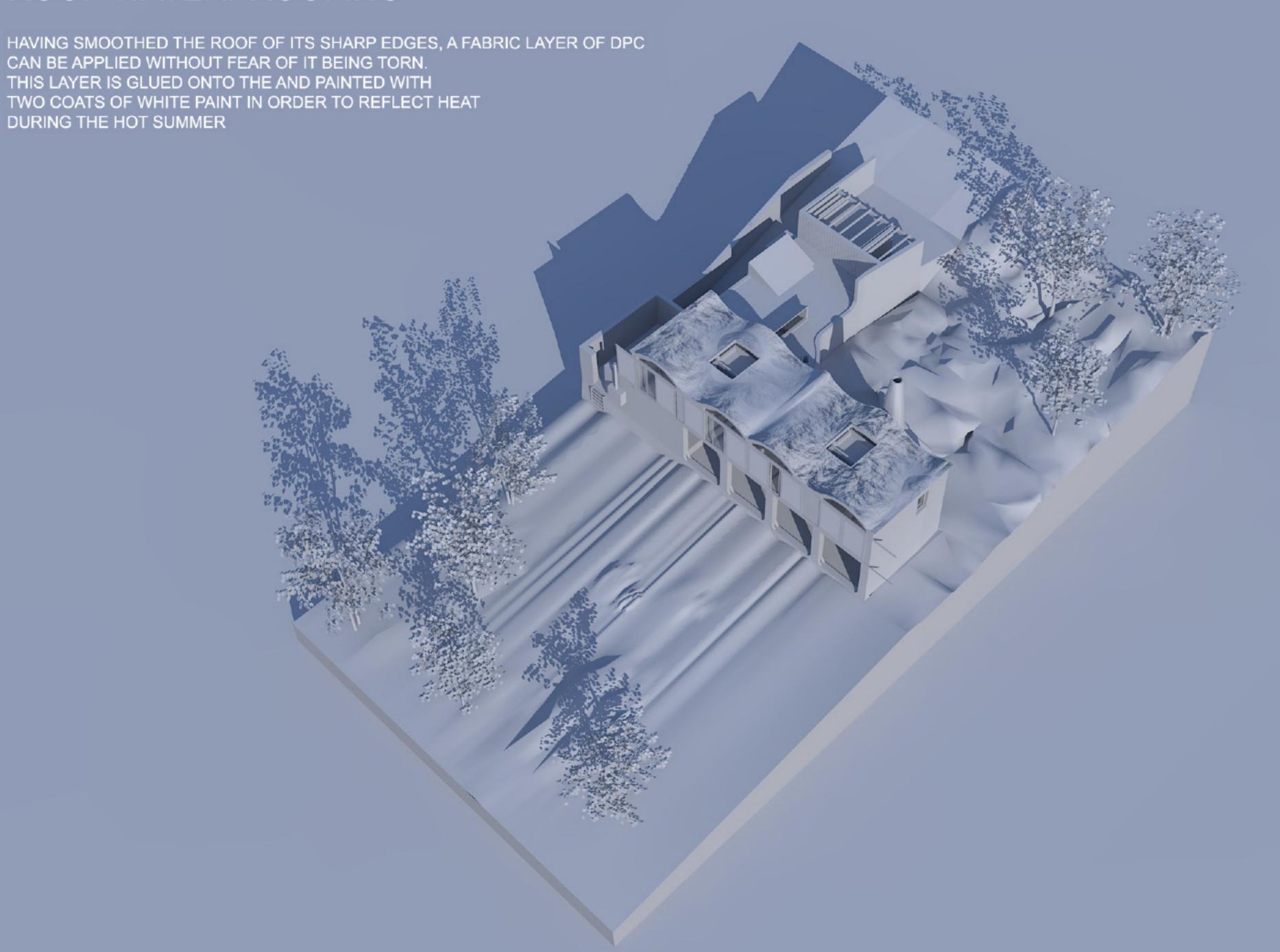
DIAG.

ACAD

**BACK** 

**NEXT** 

#### ROOF WATERPROOFING



HOME

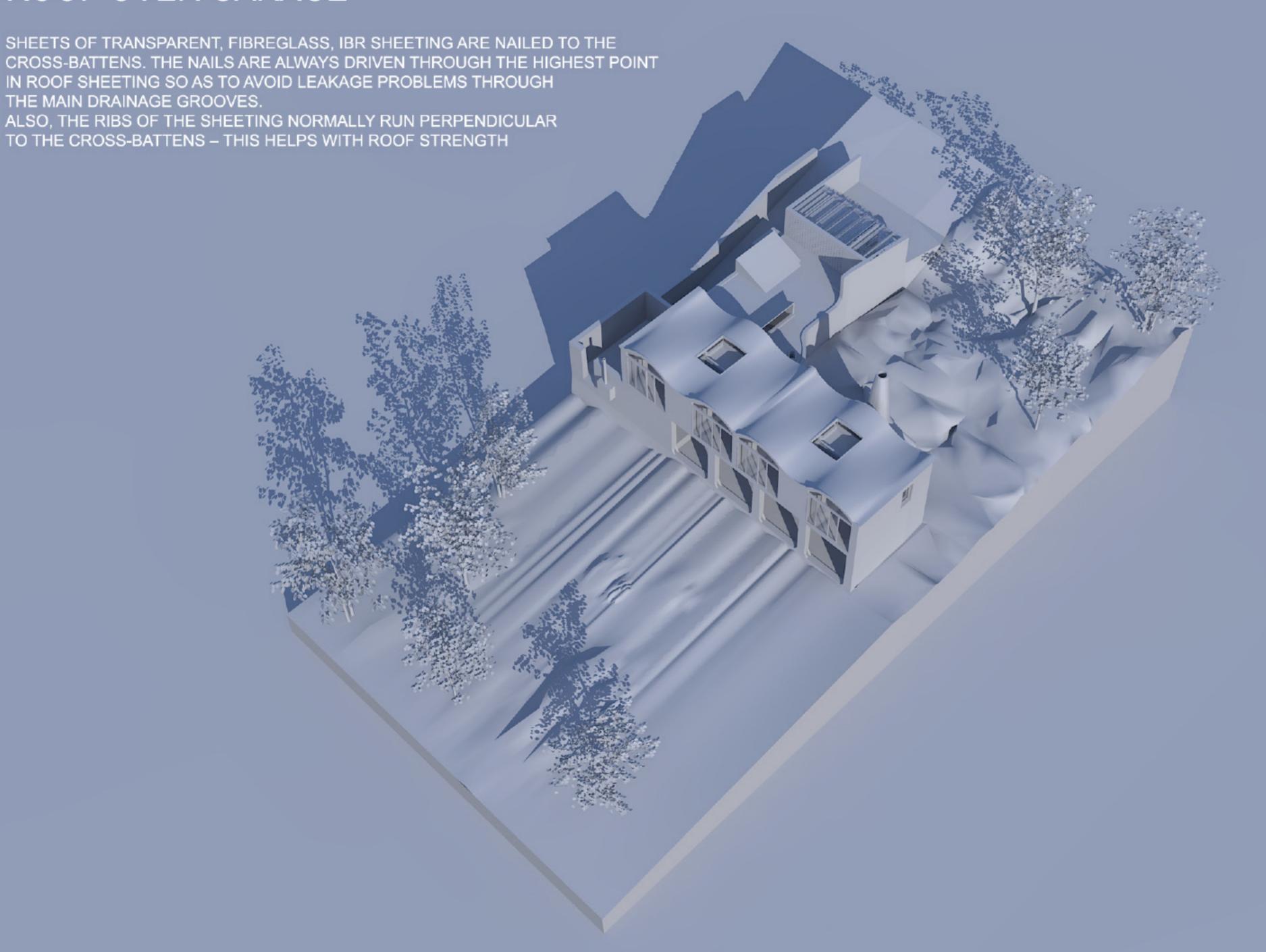
DIAG.

ACAD

**BACK** 

**NEXT** 

#### ROOF OVER GARAGE



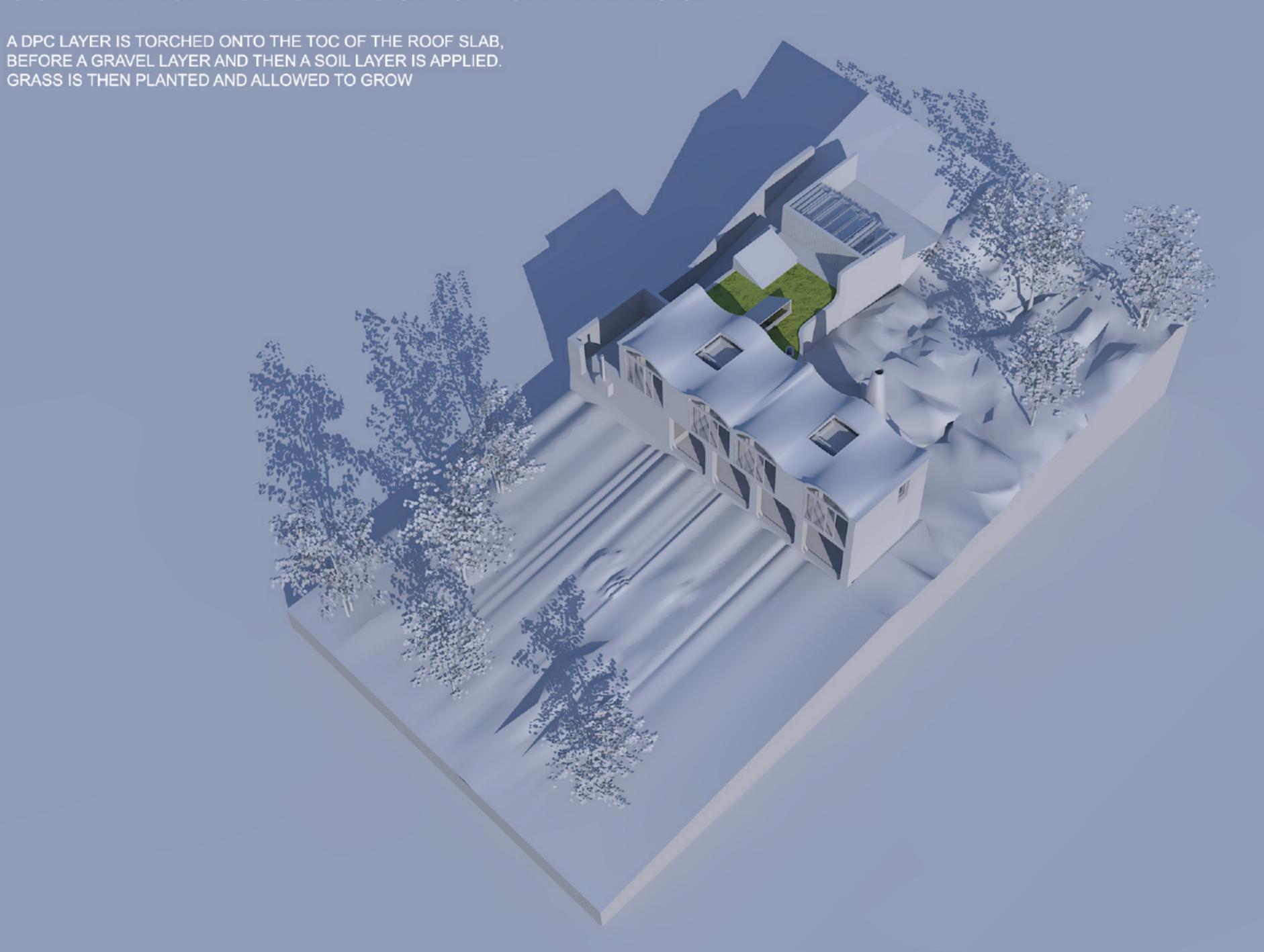
HOME

DIAG.

**BACK** 

**NEXT** 

#### SOIL AND GRASS ON ROOF ON GREEN ROOF



HOME

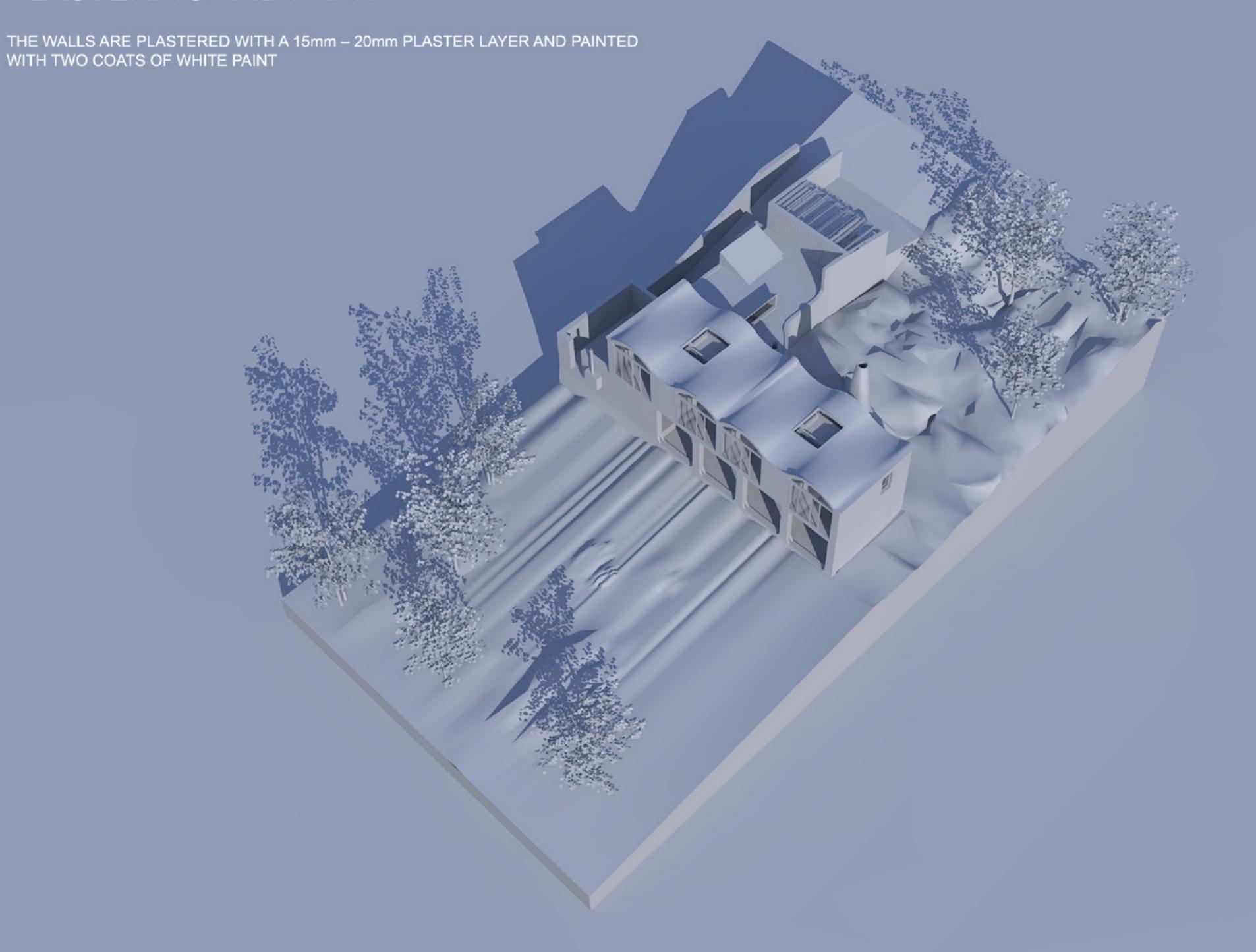
DIAG.

ACAD

**BACK** 

**NEXT** 

#### PLASTERING AND PAINT



HOME

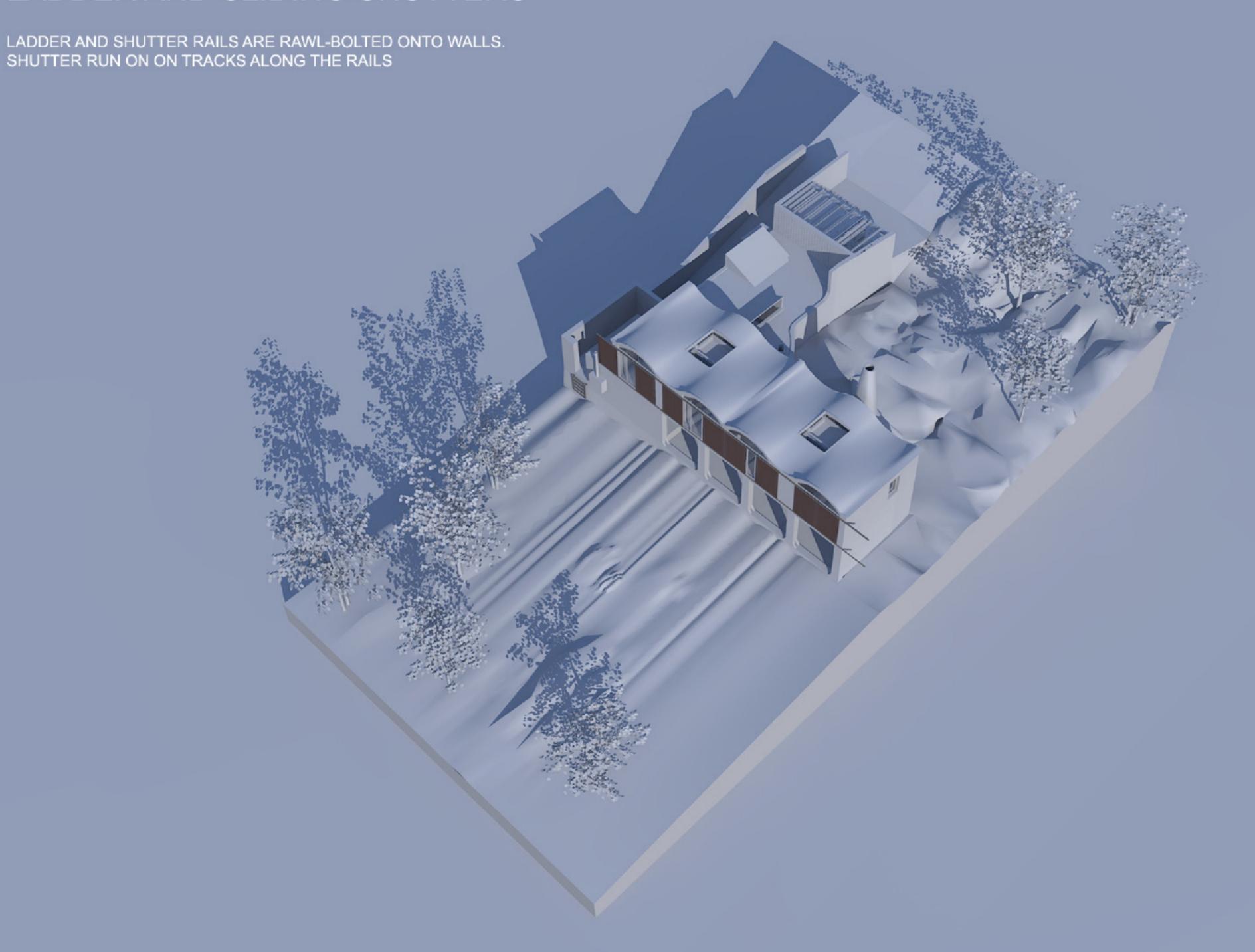
DIAG.

ACAD

**BACK** 

NEXT

#### LADDER AND SLIDING SHUTTERS



HOME

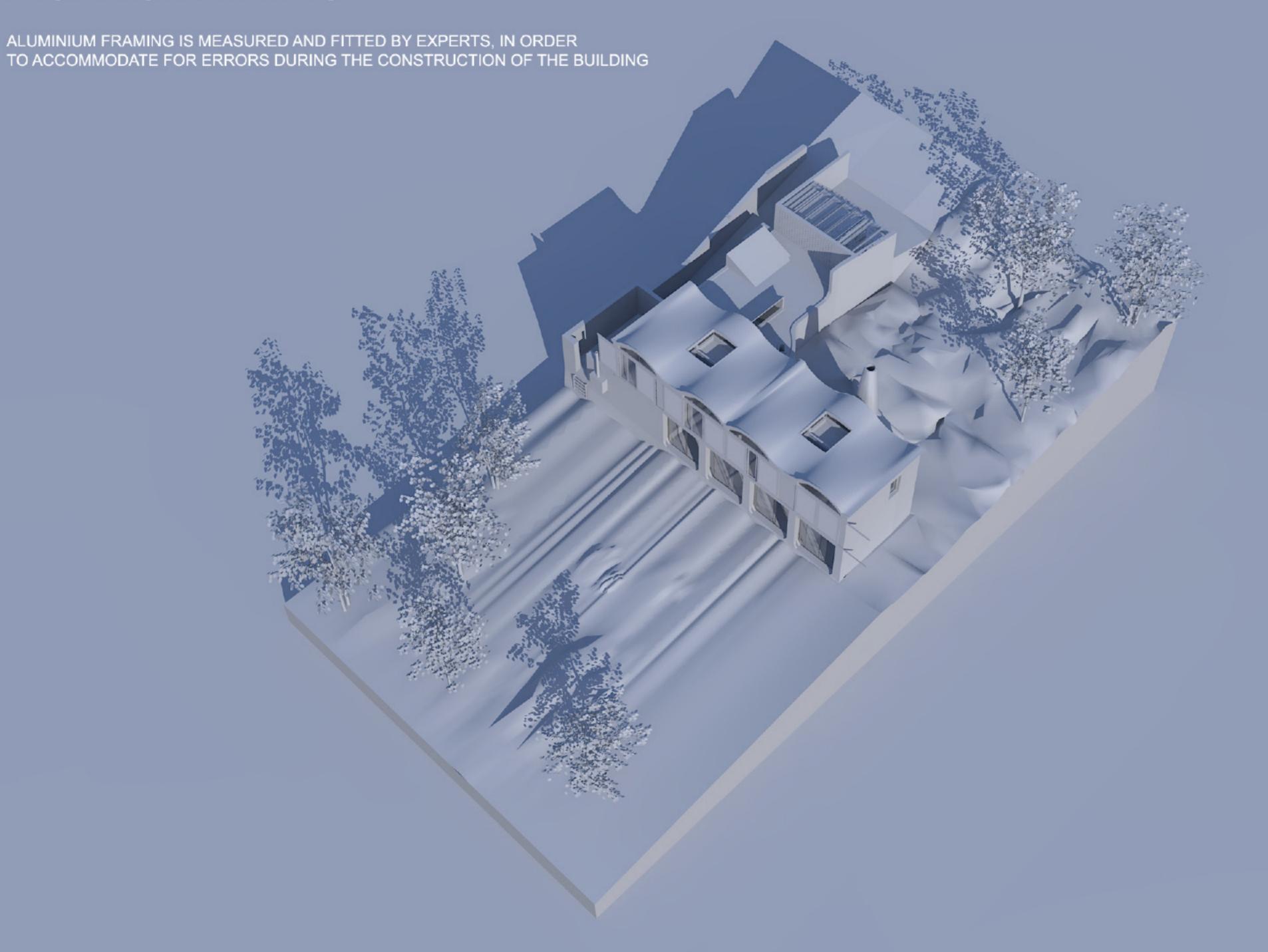
DIAG.

ACAD

**BACK** 

NEXT

#### ALUMINIUM FRAMING



HOME

DIAG.

ACAD

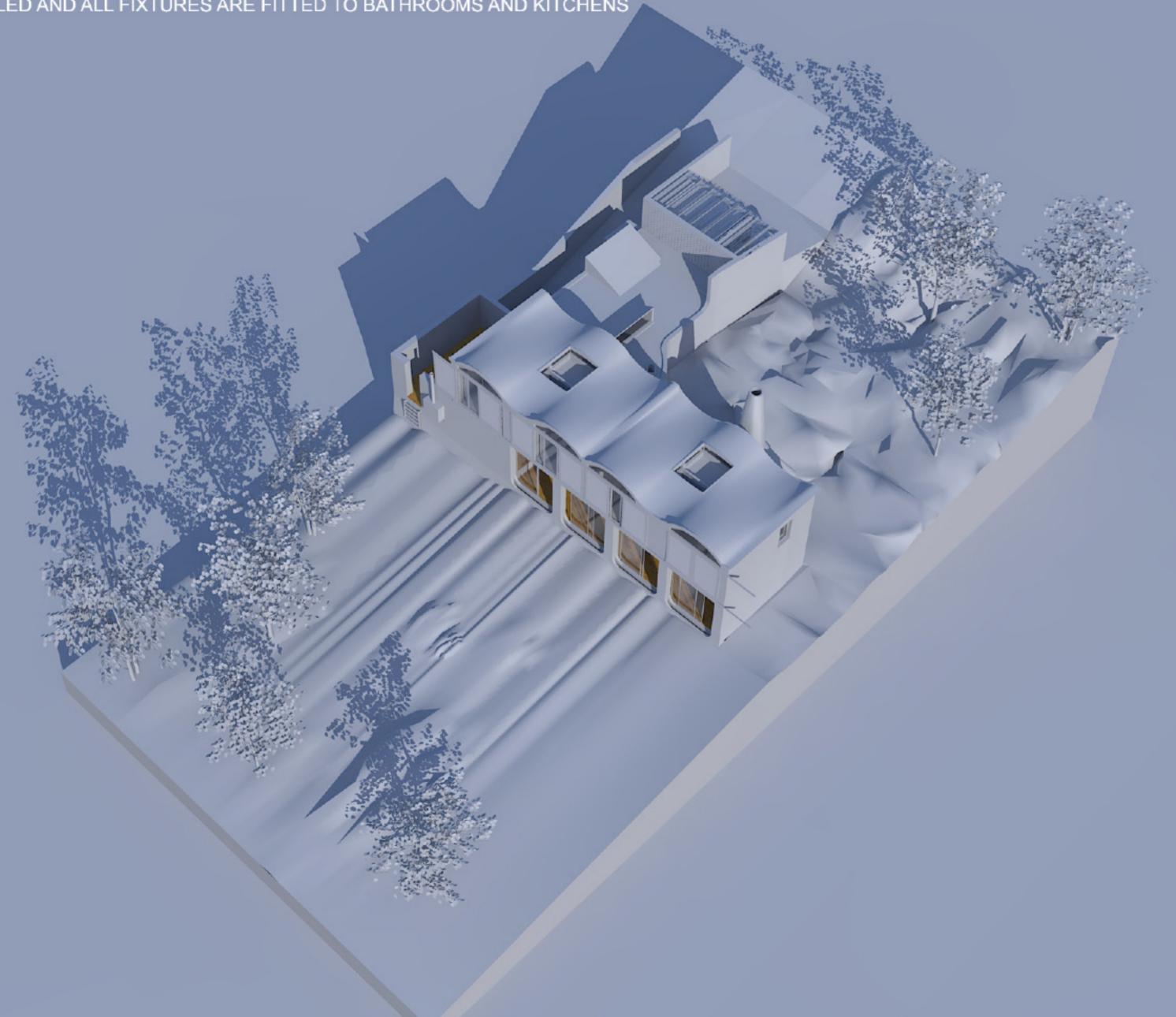
**BACK** 

**NEXT** 

## TILING, BATHROOMS AND KITCHEN

LASTLY, THE FLOORS ARE TILED AND ALL FIXTURES ARE FITTED TO BATHROOMS AND KITCHENS





DIAG.

ACAD

**BACK** 

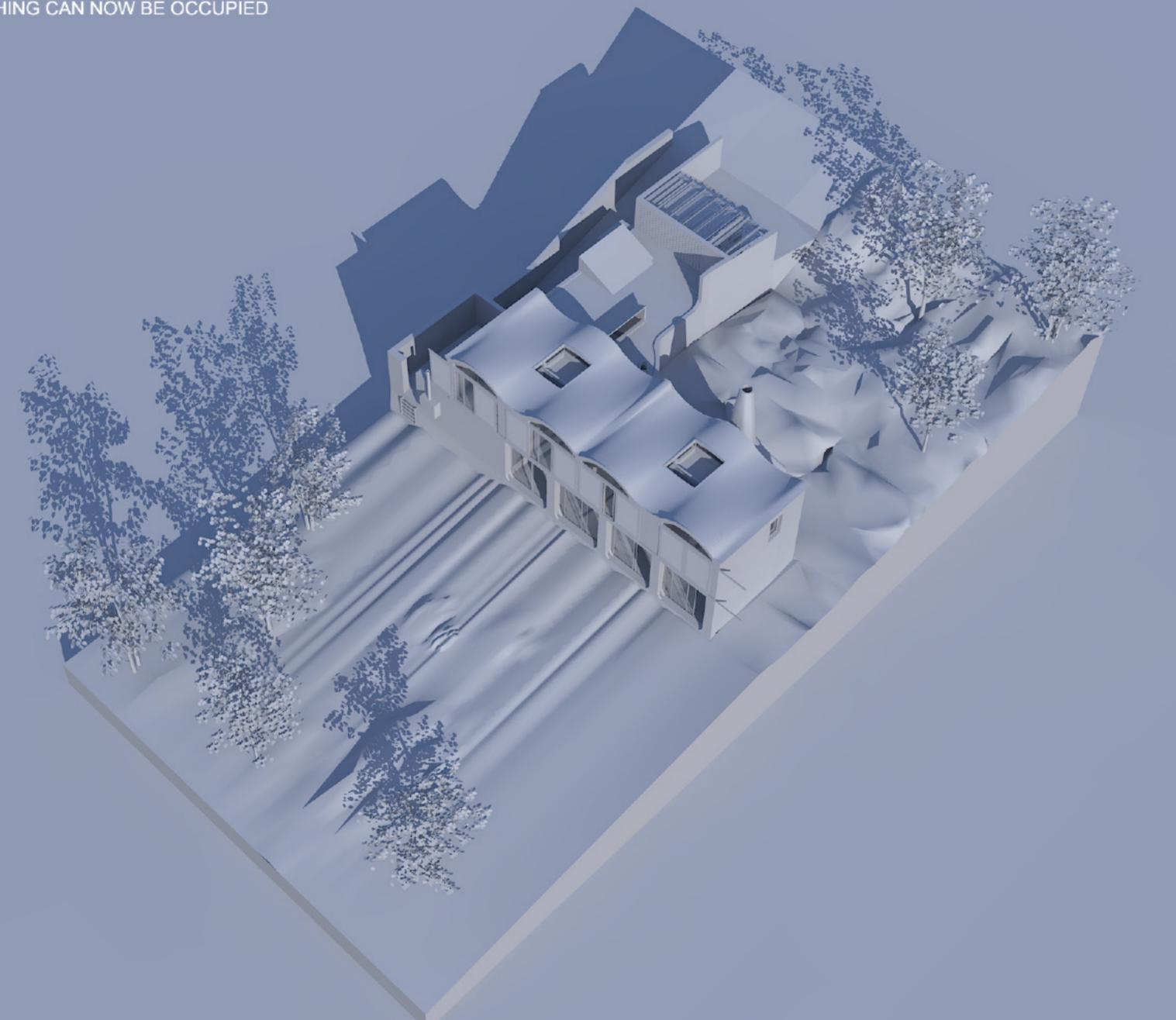
**NEXT** 

## HABITATION

THE HOUSE, AFTER FURNISHING CAN NOW BE OCCUPIED

HOME

FILM



DIAG.

ACAD

**BACK** 

#### DIE ES, CAMPS BAY, SOUTH AFRICA - GAWIE FAGAN

AN INTERACTIVE EDUCATIONAL PRODUCT EXPLORING FAGAN'S UNDERSTADING OF COMBINING DESIGN AND TECHNOLOGY INTO A SINGLE, NON-LINEAR, DIVERSE AND INTERESTING PROBLEM-SOLVING METHODOLOGY

HOME

GROUND FLOOR PLAN

FIRST FLOOR PLAN

WEST

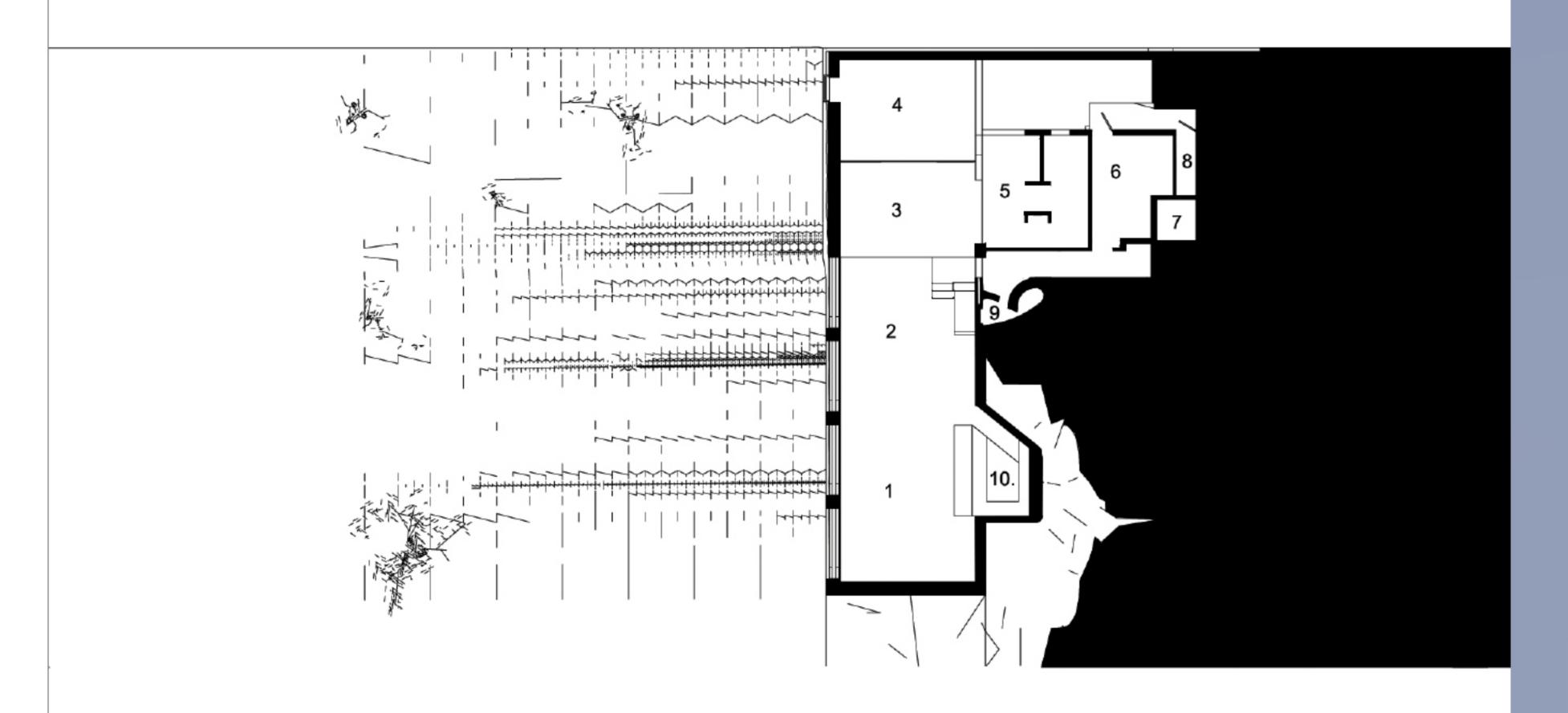
TRANSVERSE SECTION: A-A

LONGITUDINAL SECTION : B - B

# DESIGN DRAWINGS

#### **GROUND FLOOR PLAN**

# HOME



- 1. DRAWING STUDIO
- 2. LIVING ROOM
- 3. DINING/AFTERNOON ROOM
- 4. COURTYARD
- 5. KITCHEN

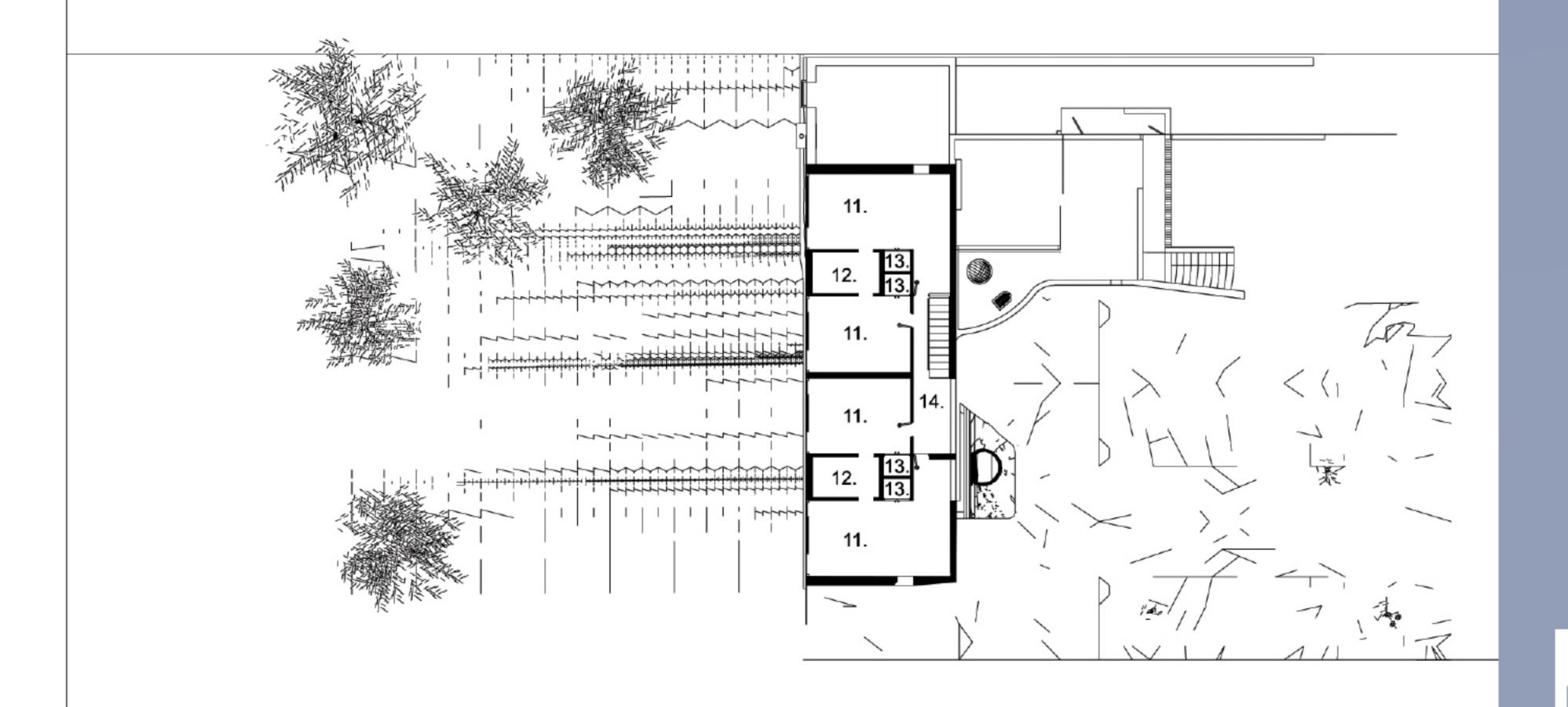
- 6. MEETING ROOM
- 7. BATHROOM
- 8. WC
- 9. GUEST WC
- 10. FIREPLACE

BACK

GF

#### FIRST FLOOR PLAN

# HOME



11. BEDROOM

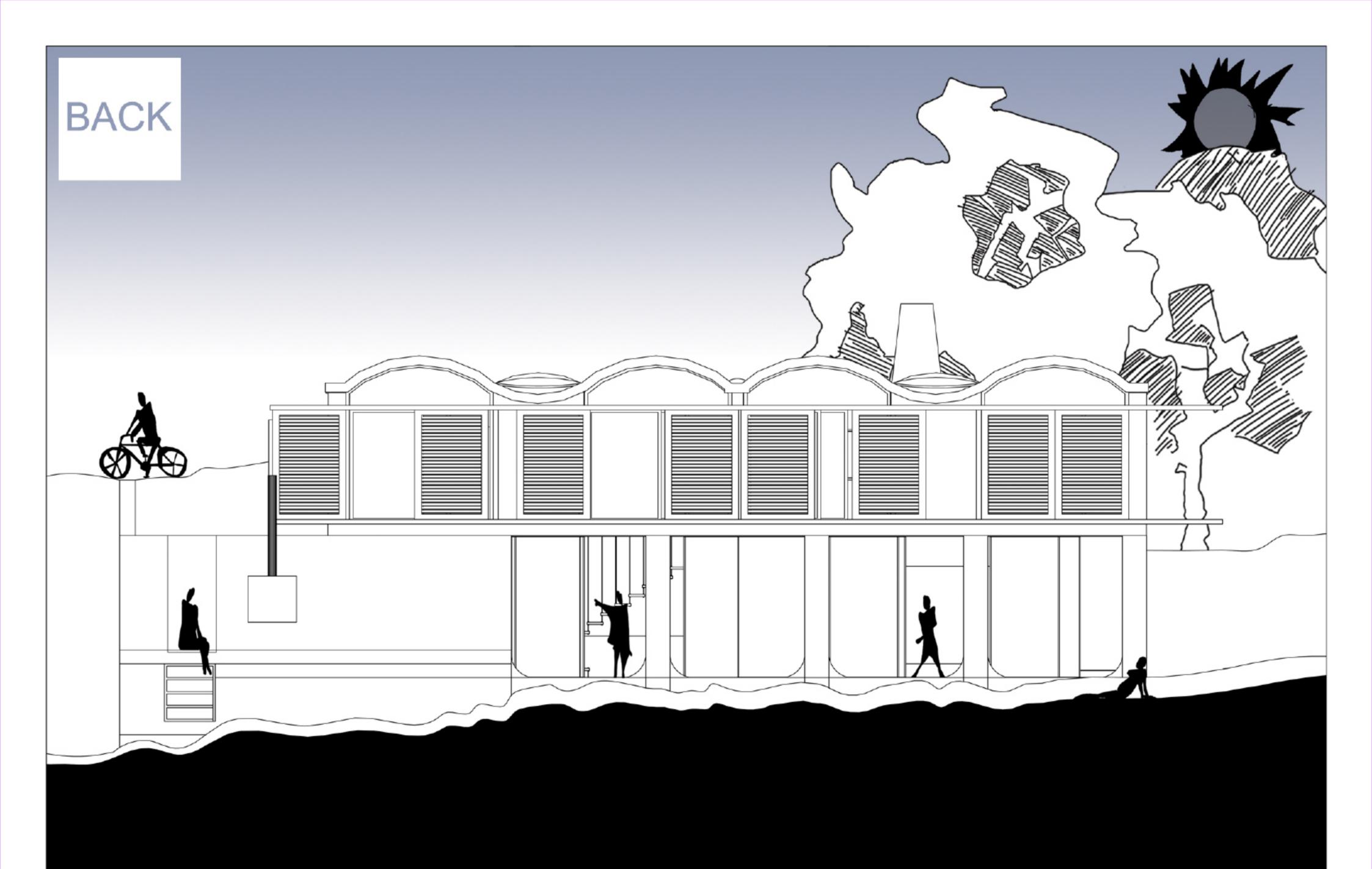
12. BATHROOM

13. CUPBOARD

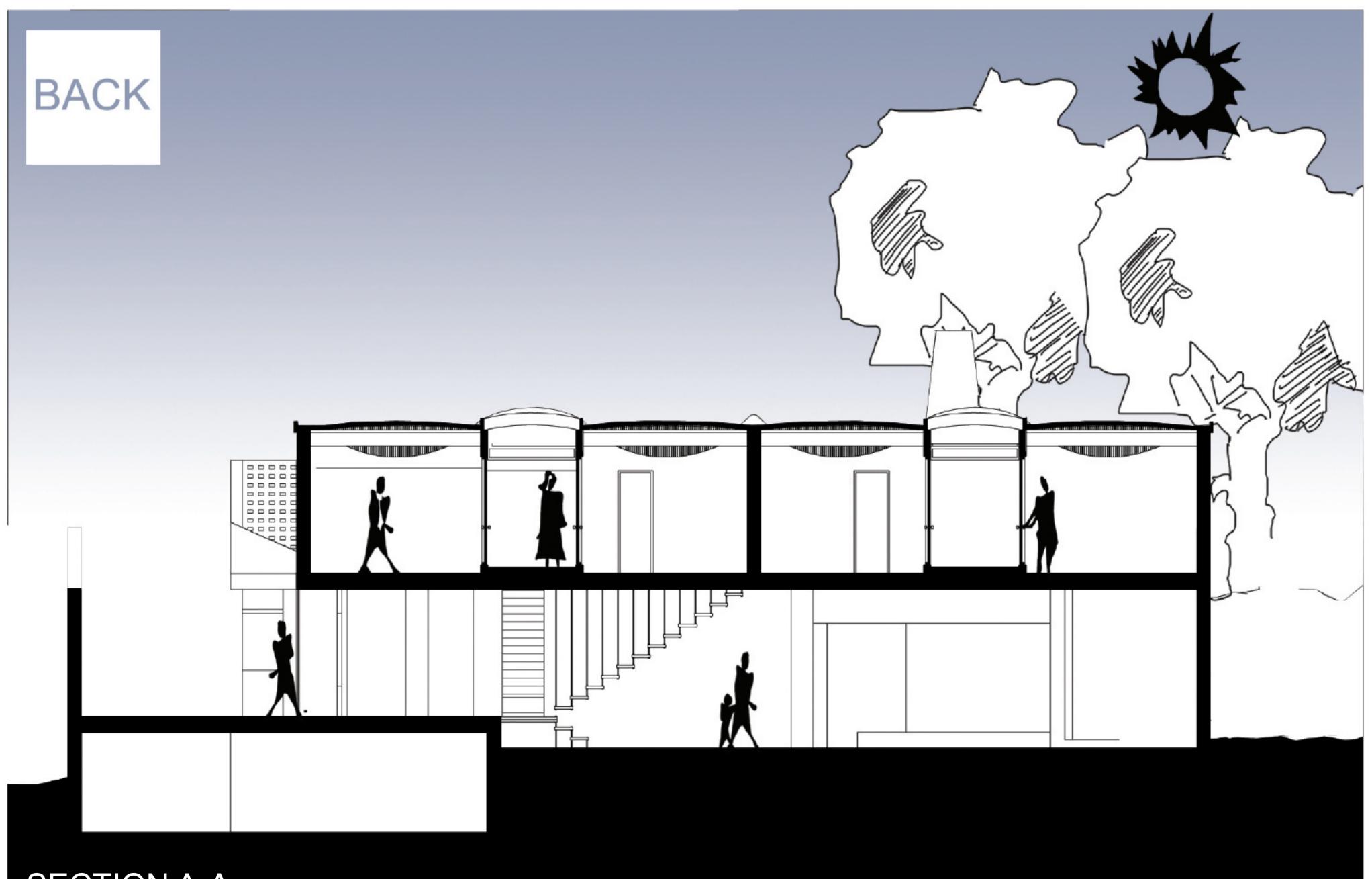
14. PASSAGE

BACK

1 **F** 



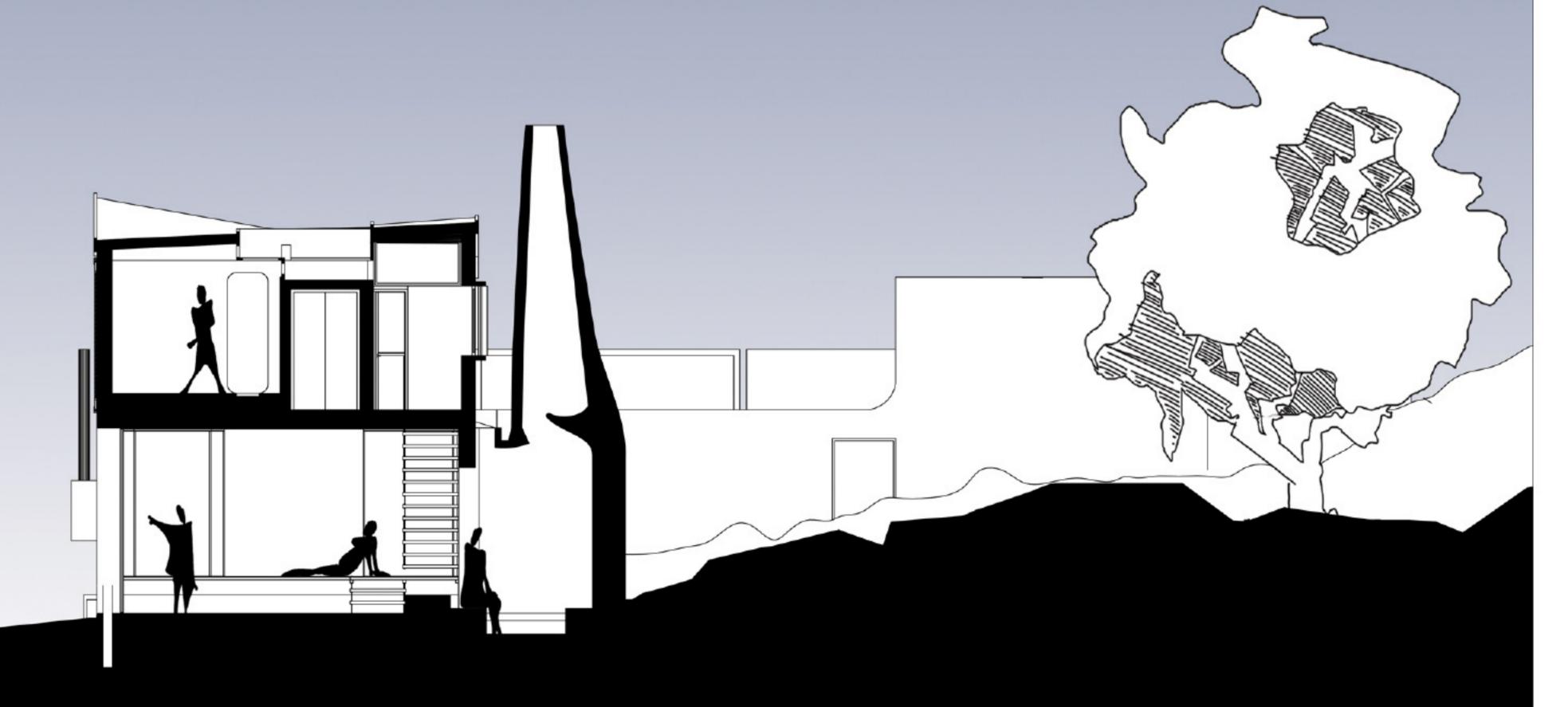
WEST FACADE



SECTION A-A







LONG SECTION B - B

## DIE ES, CAMPS BAY, SOUTH AFRICA - GAWIE FAGAN

НОМЕ

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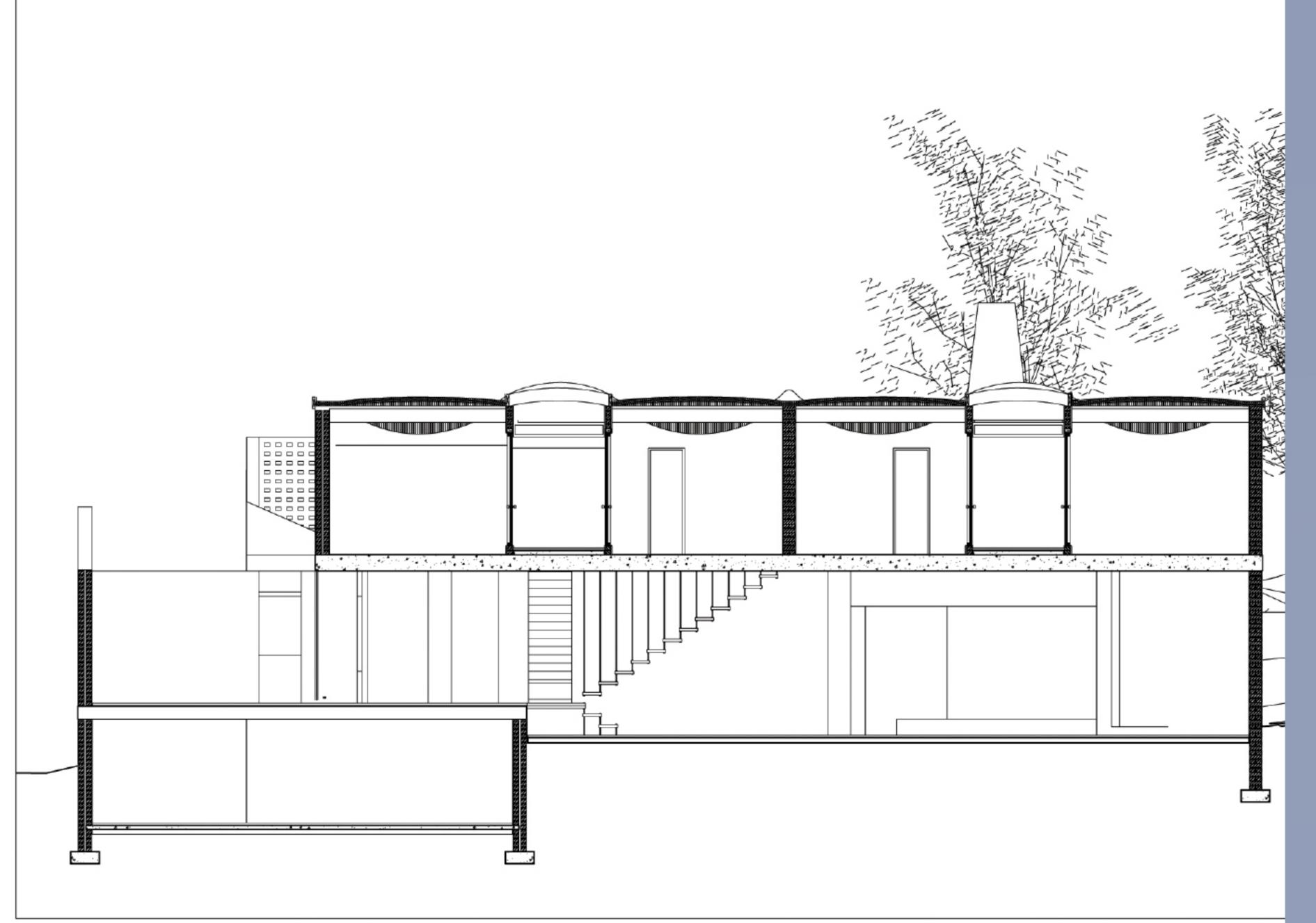
TRANSVERSE SECTION: A-A

LONGITUDINAL SECTION : B - B

LONGITUDINAL SECTION: C-C

# DETAIL DRAWINGS

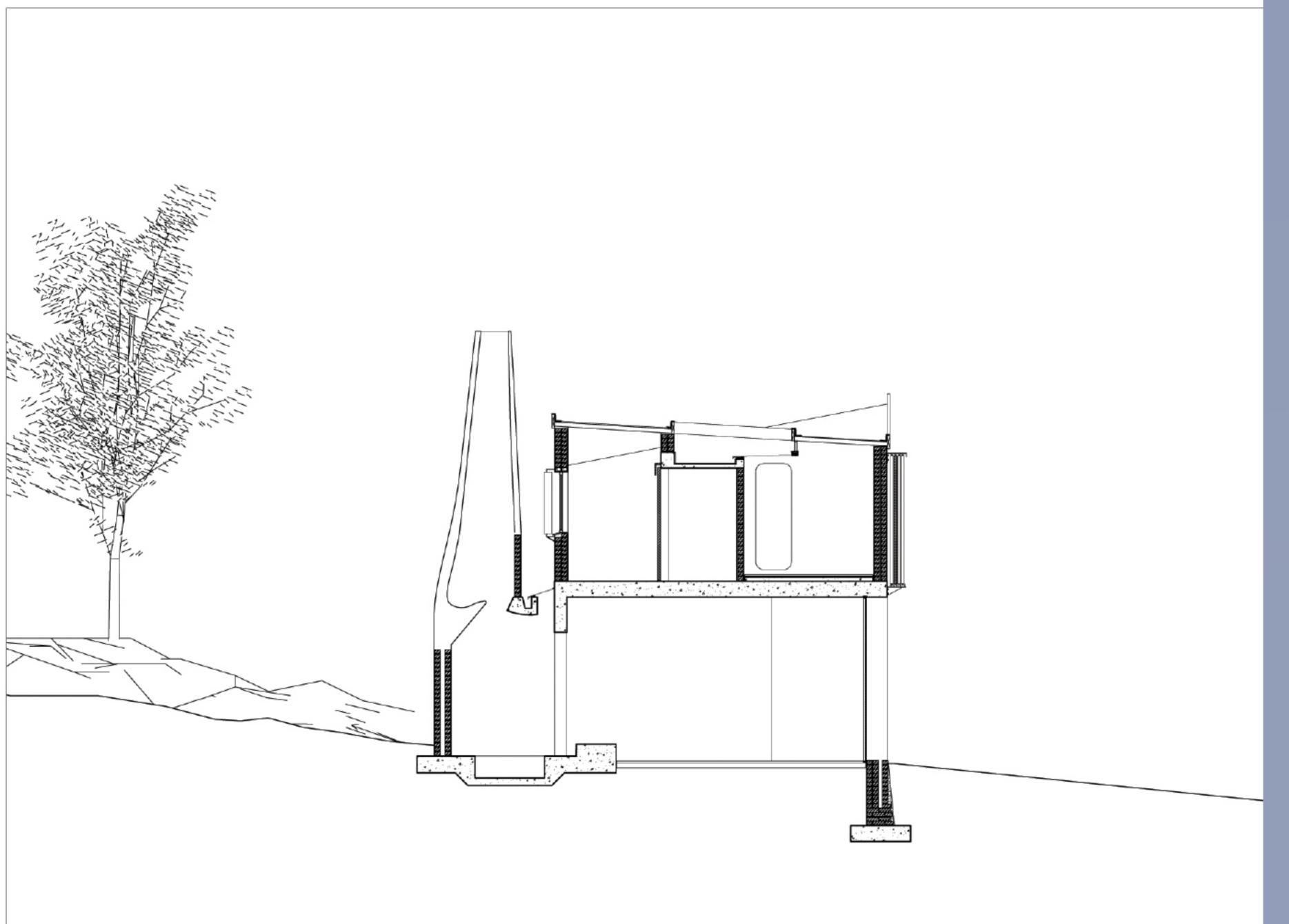






SECTION A - A

# SECTION B - B



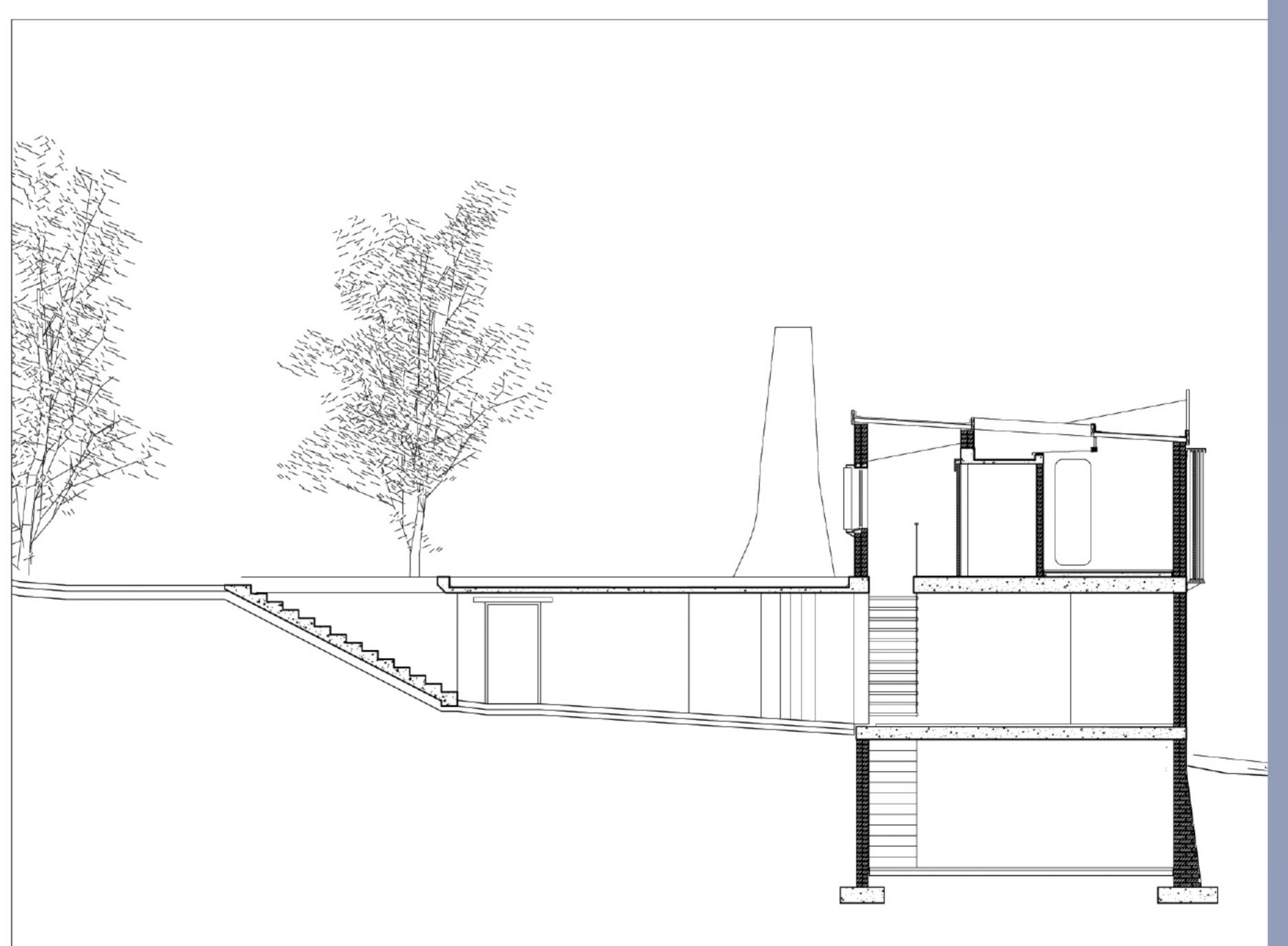


BACK

B B

SECTION B - B

# SECTION C - C

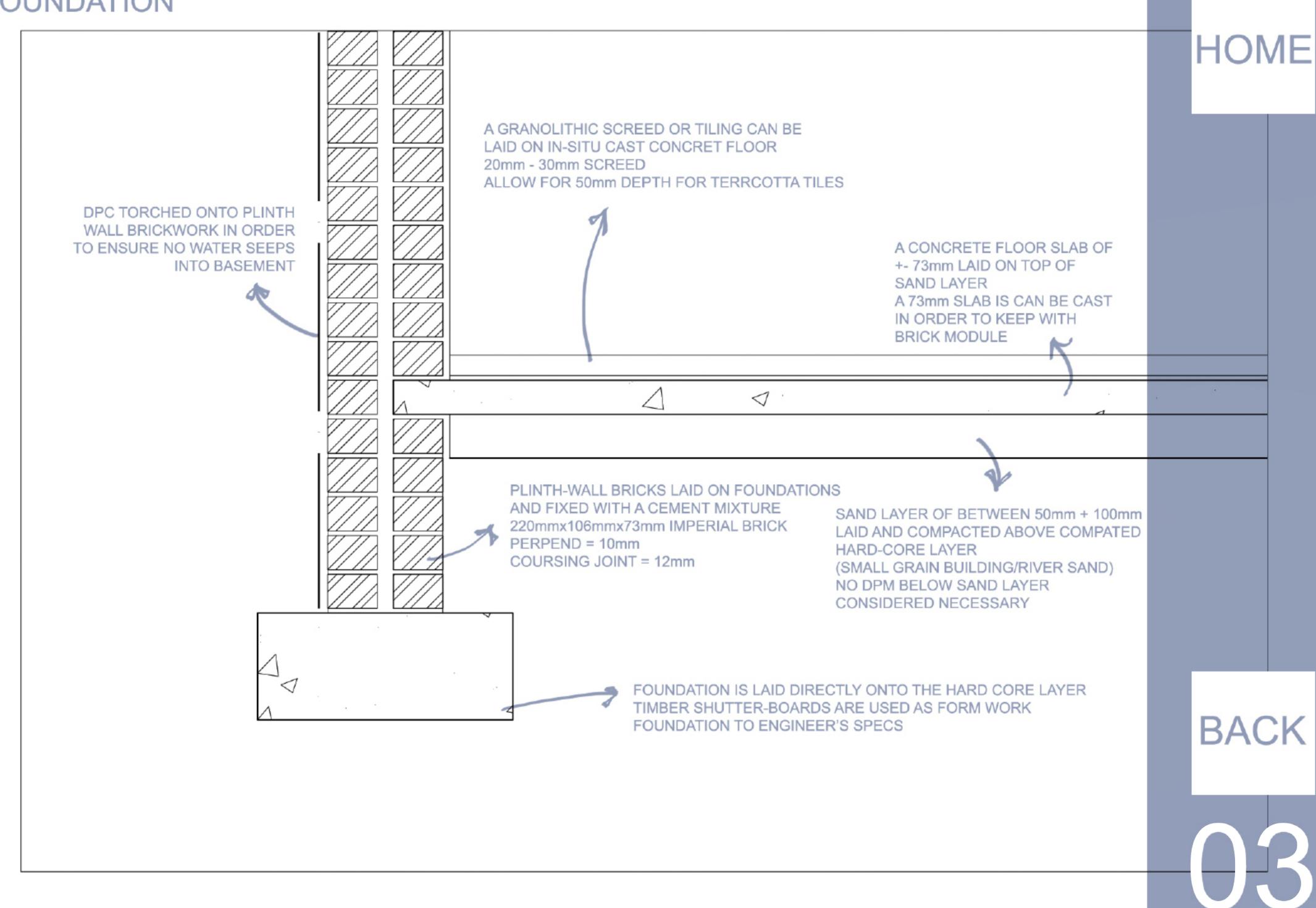


HOME

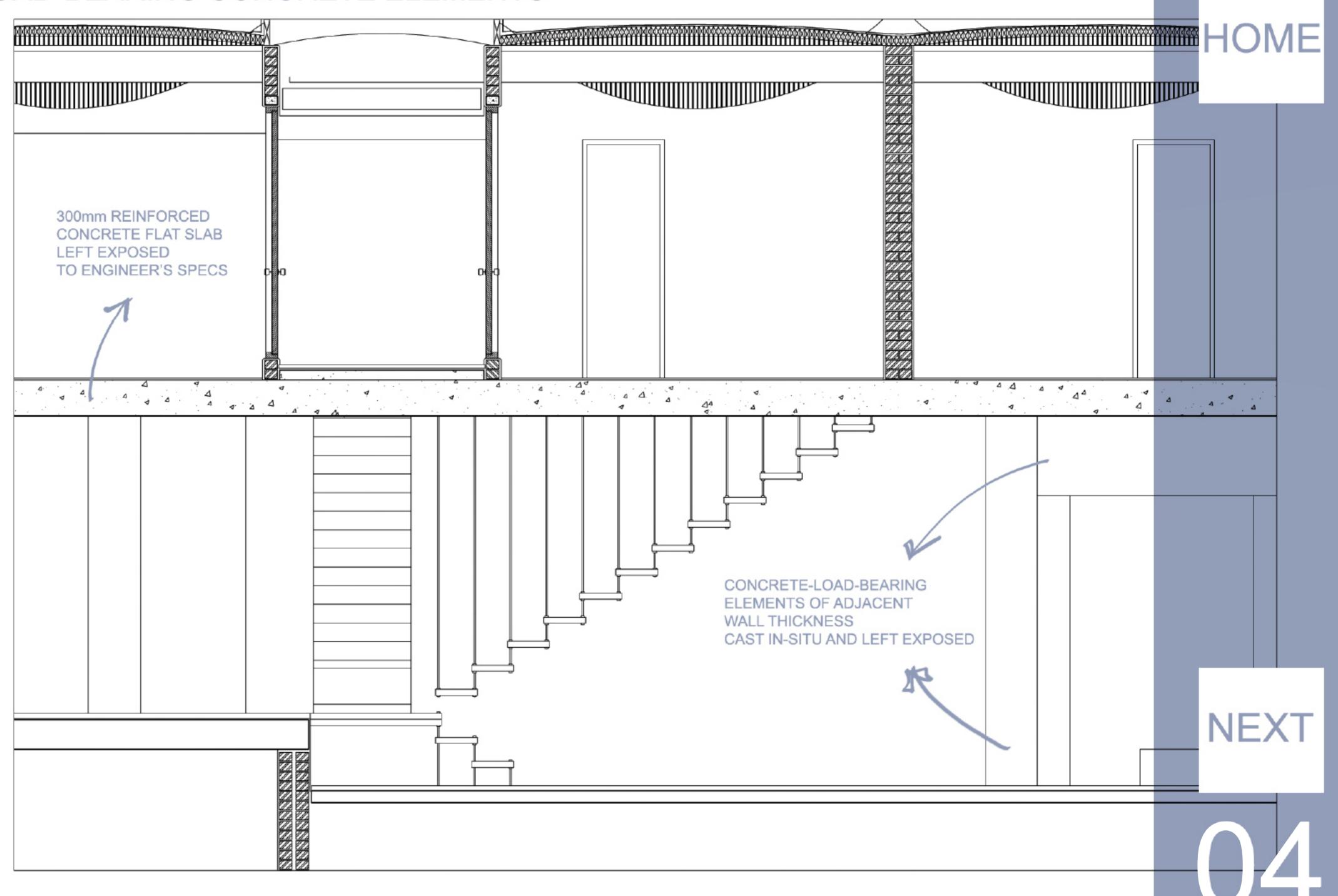
BACK



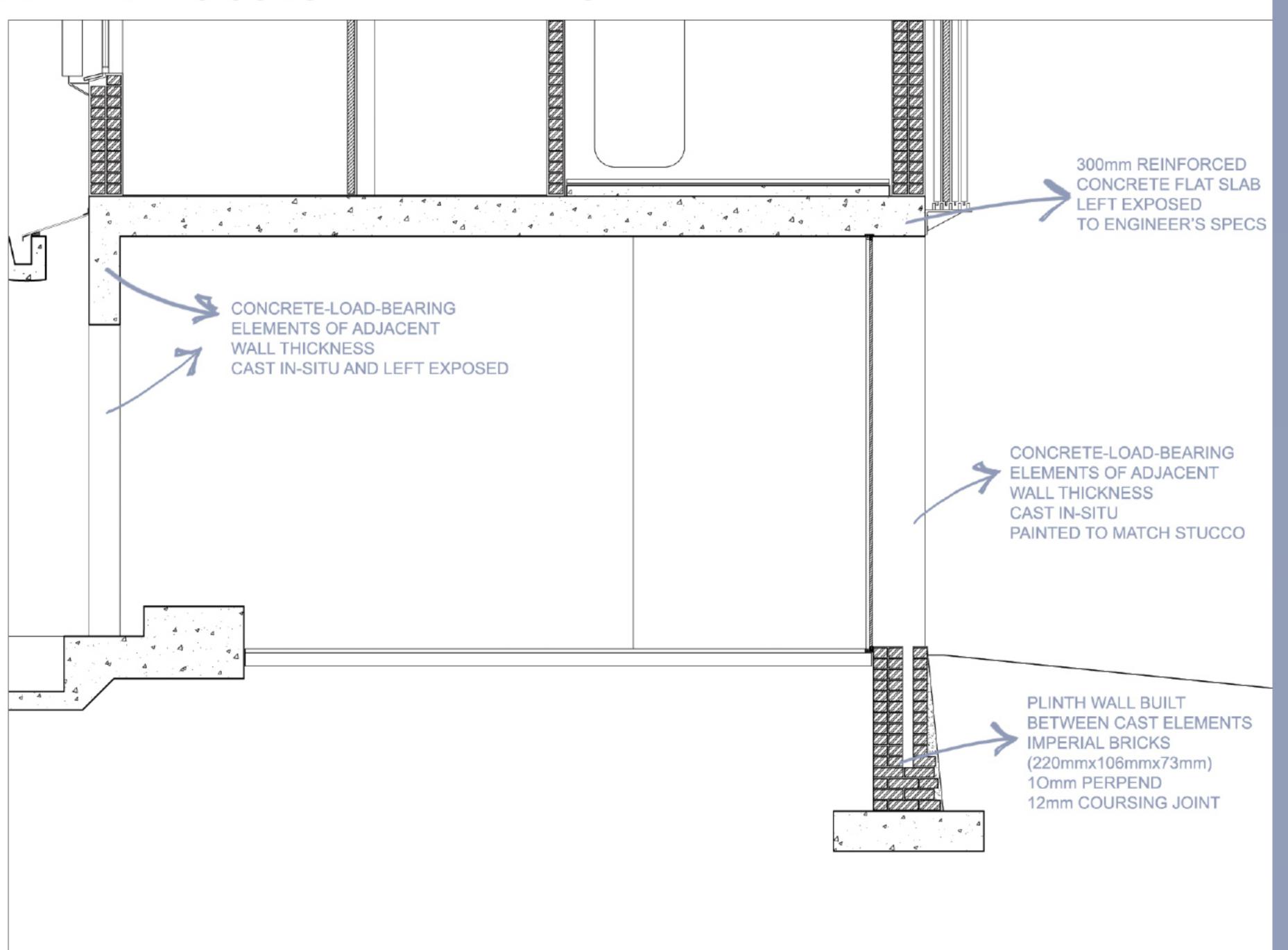
#### FOUNDATION



#### LOAD-BEARING CONCRETE ELEMENTS



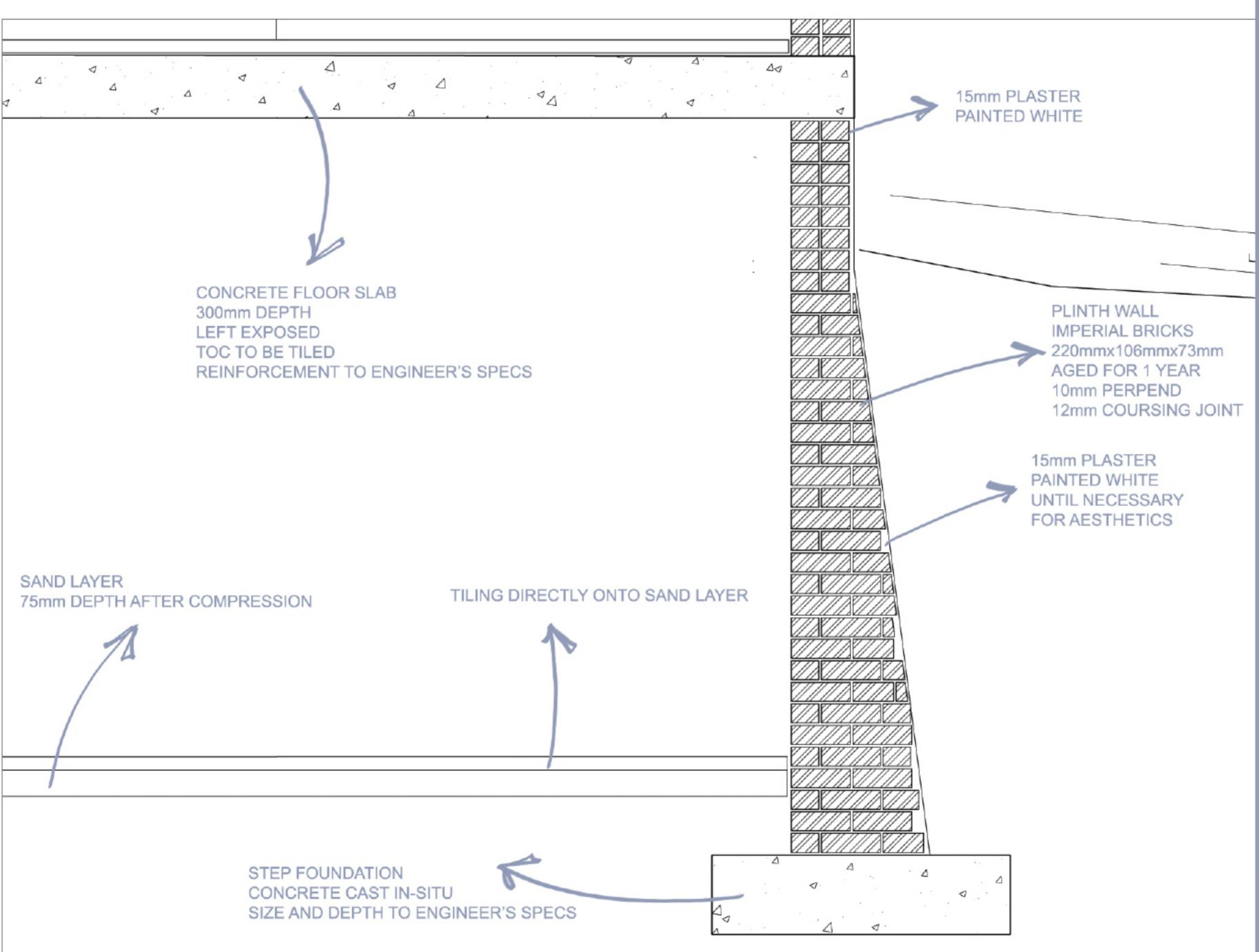
#### LOAD-BEARING CONCRETE ELEMENTS



HOME

BACK

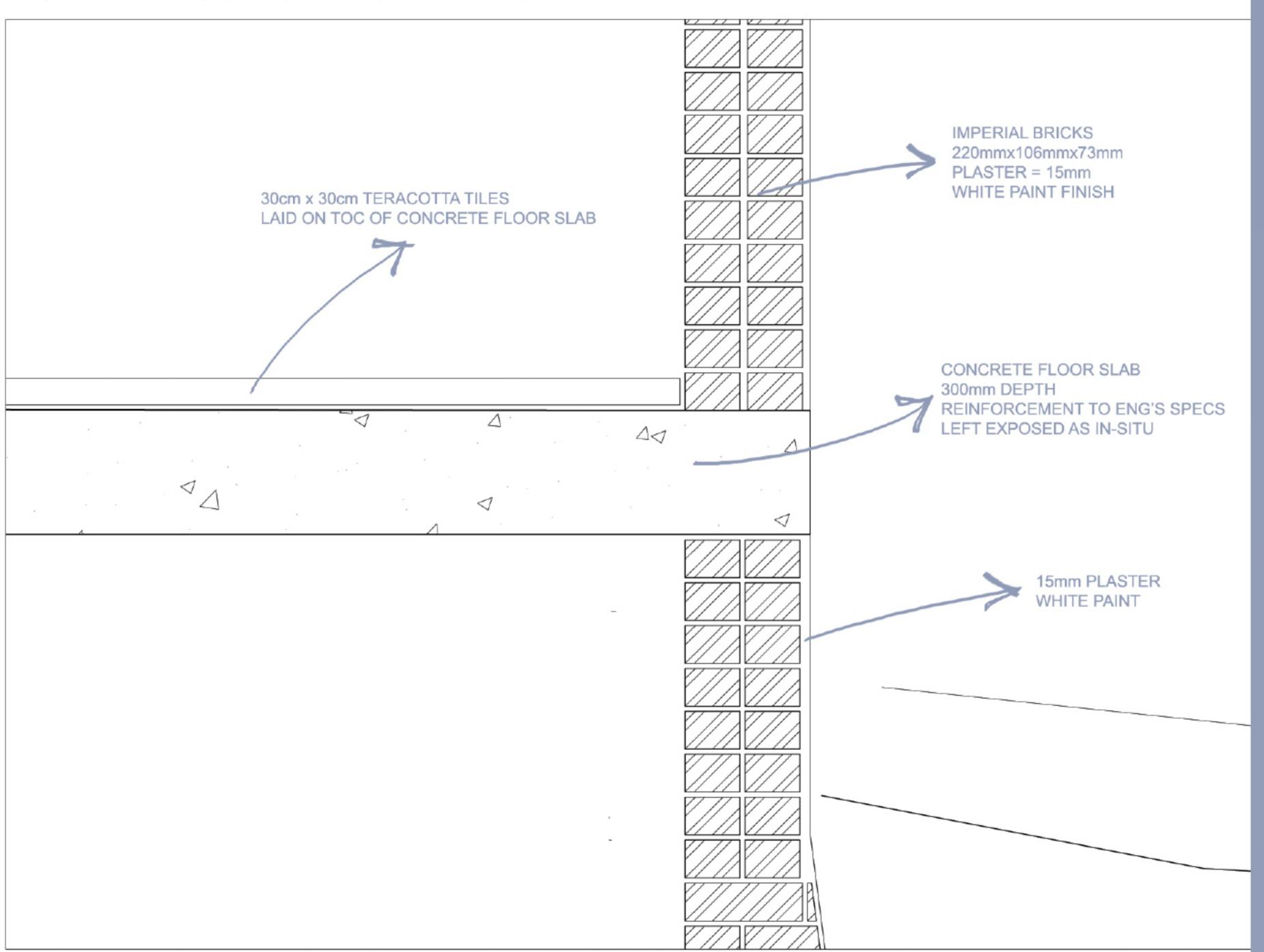
#### PLINTH WALL





BACK

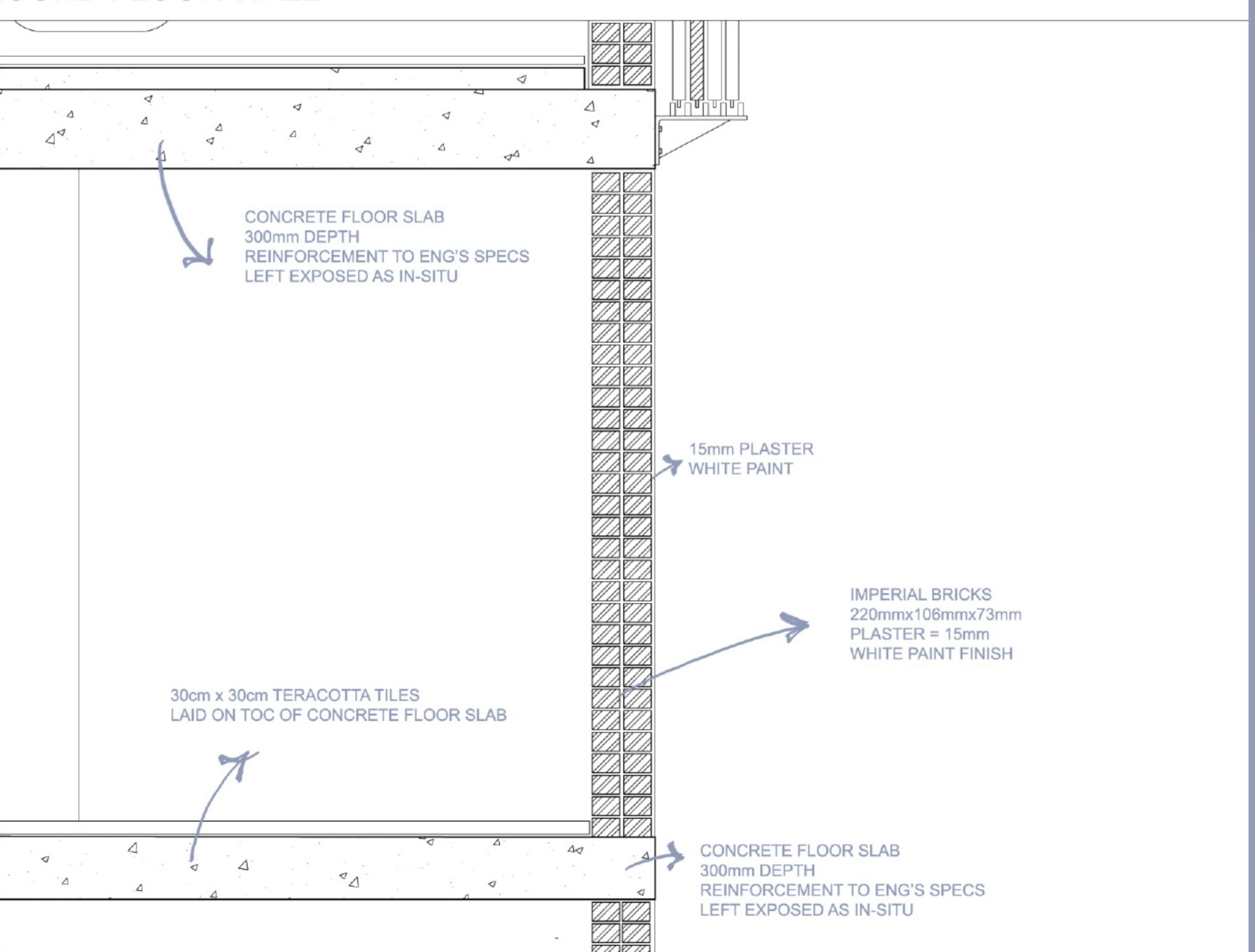
## CONCRETE FLOOR SLAB OVER BASEMENT



HOME

BACK

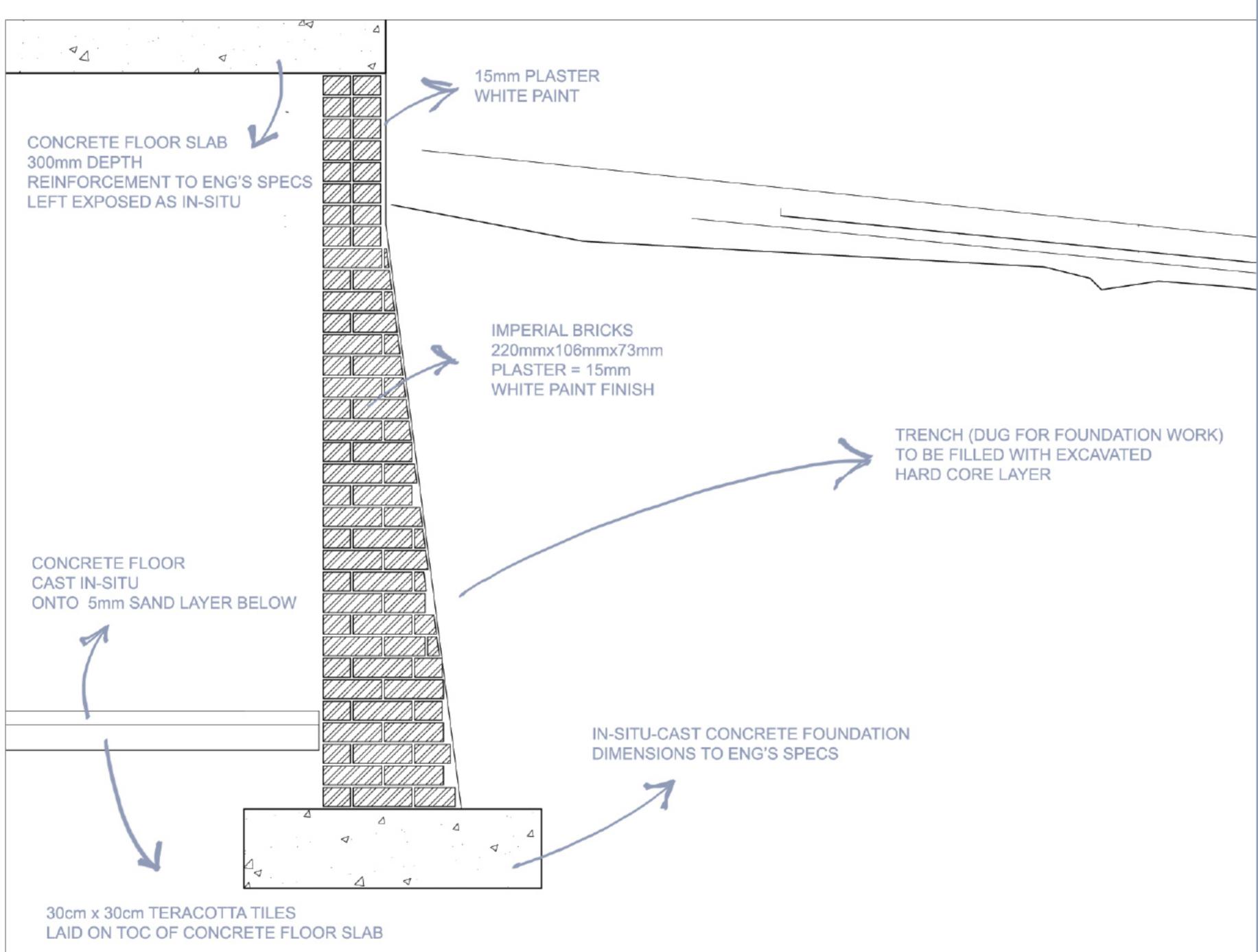
## **GROUND FLOOR WALL**



HOME

BACK

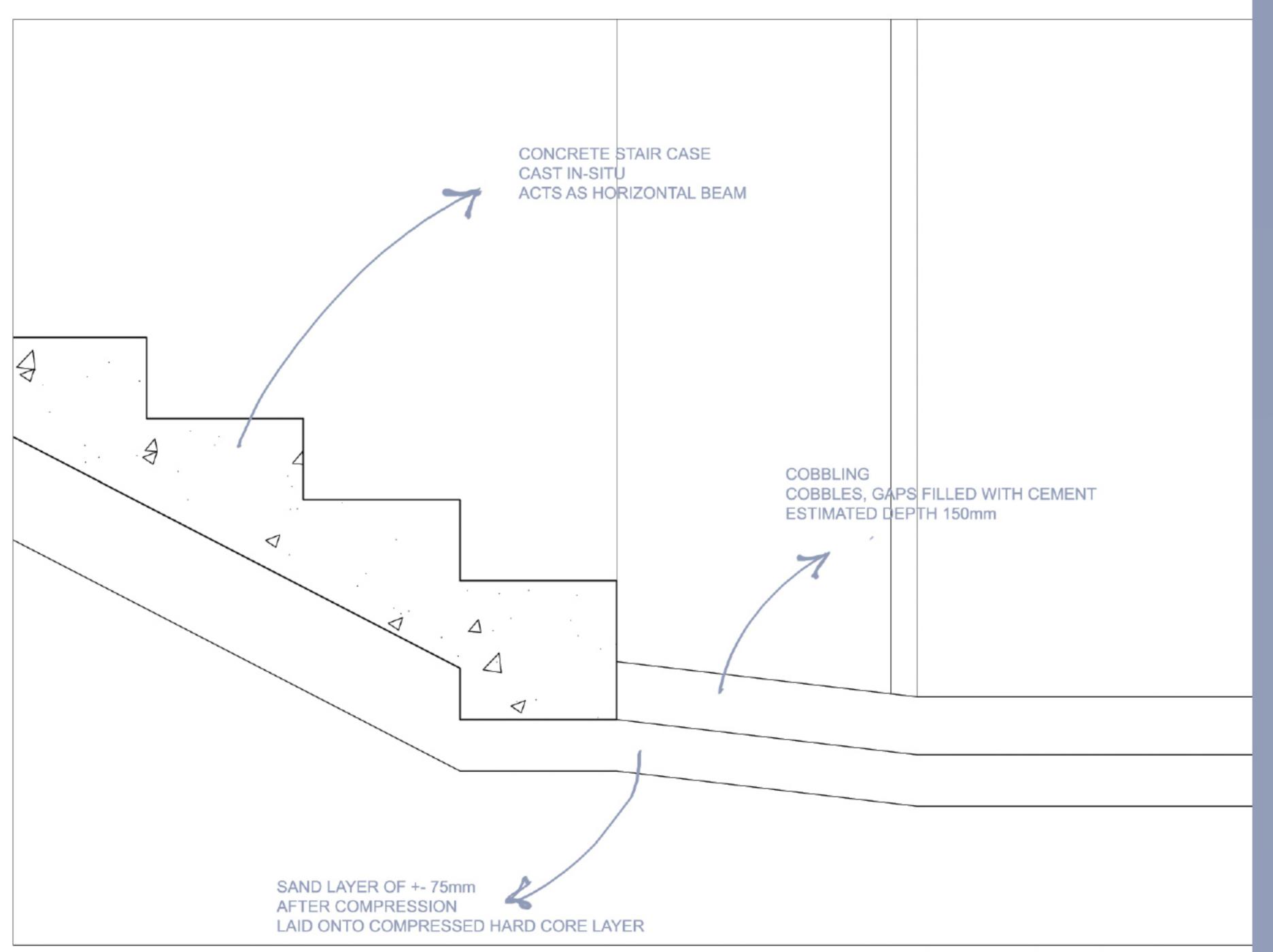
#### FILL IN





BACK

## SAND LAYER

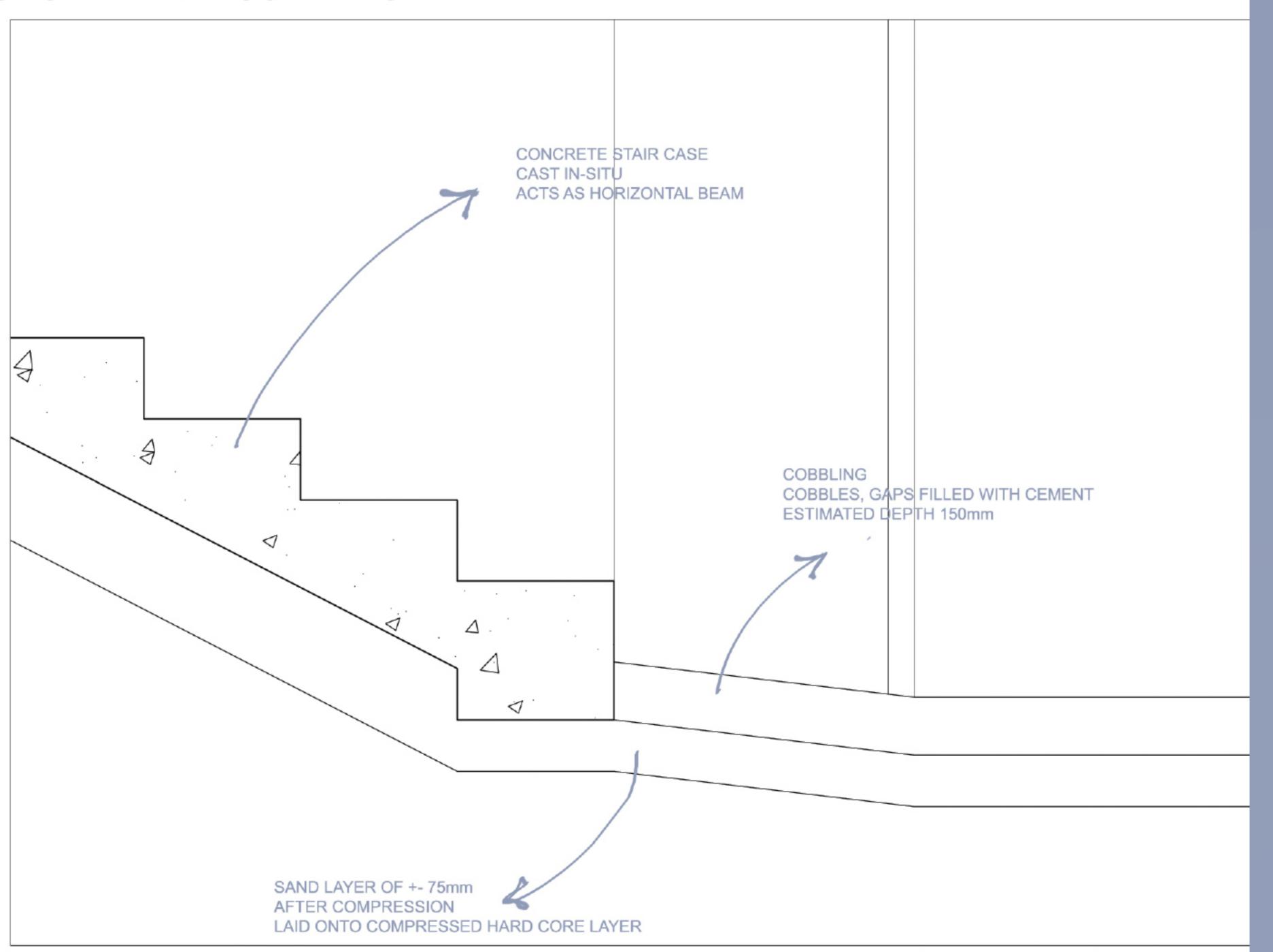


HOME

BACK

09

## CONCRETE AND COBBLING



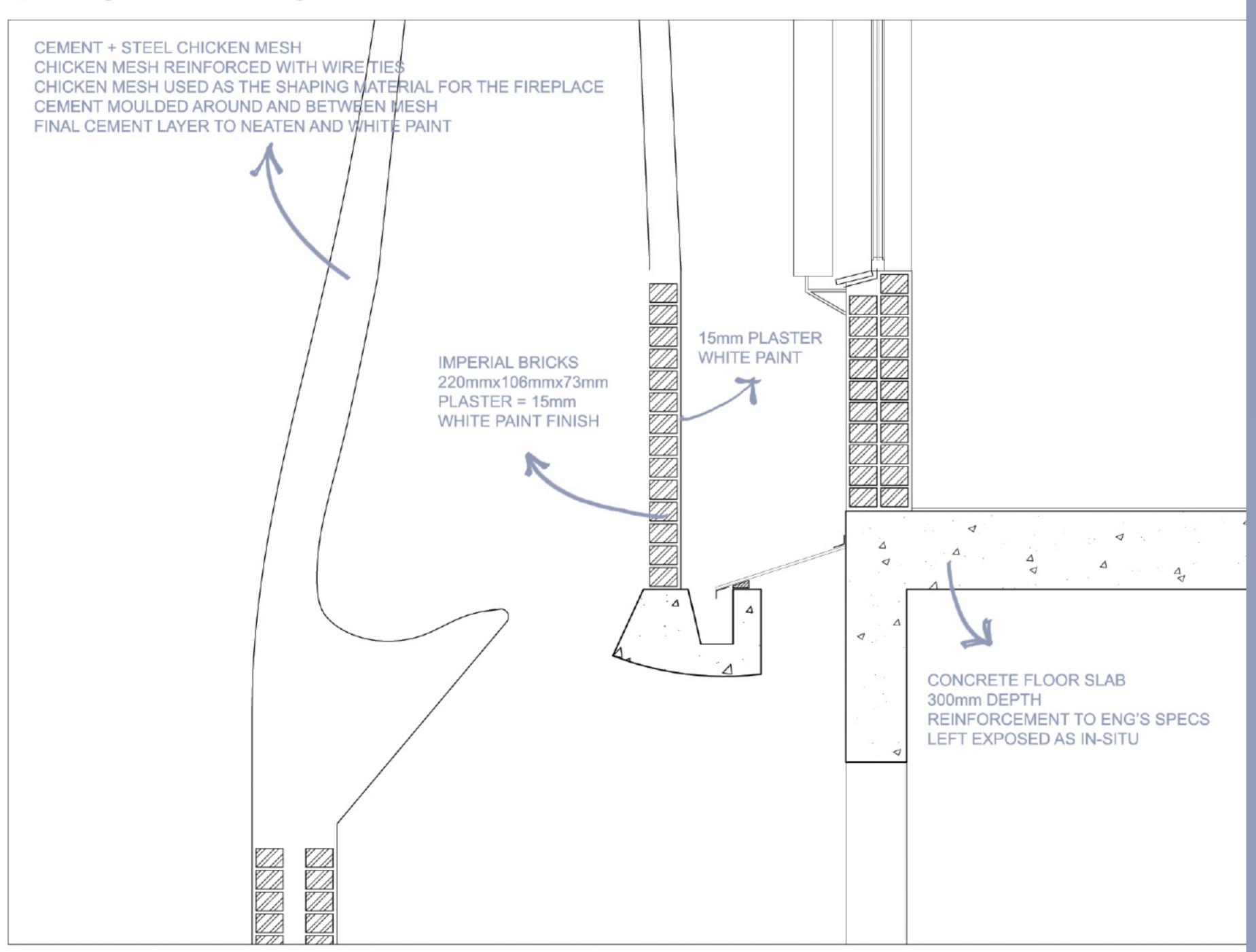
HOME

BACK



BACK

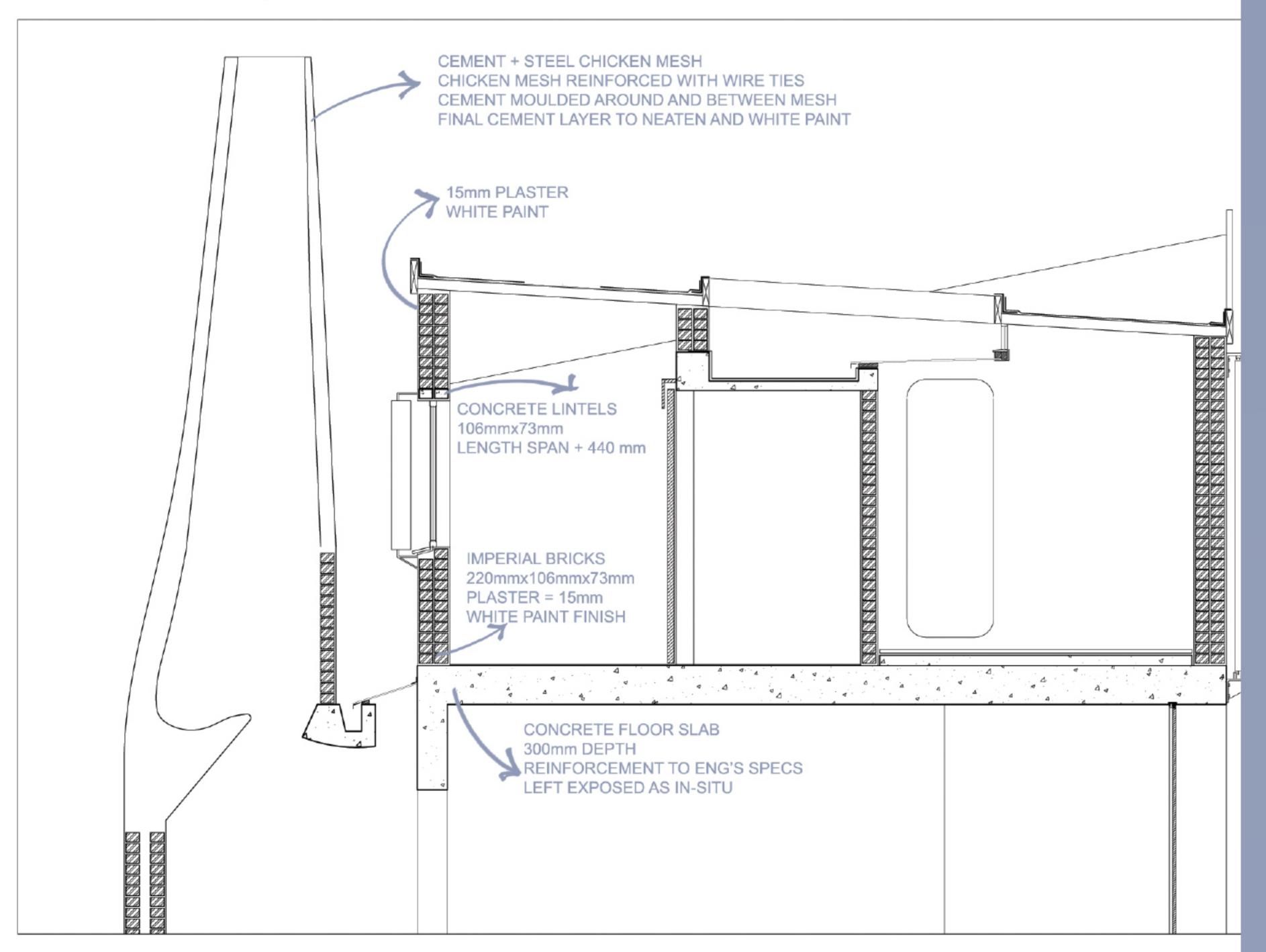
#### WIREMESH FIREPLACE



HOME

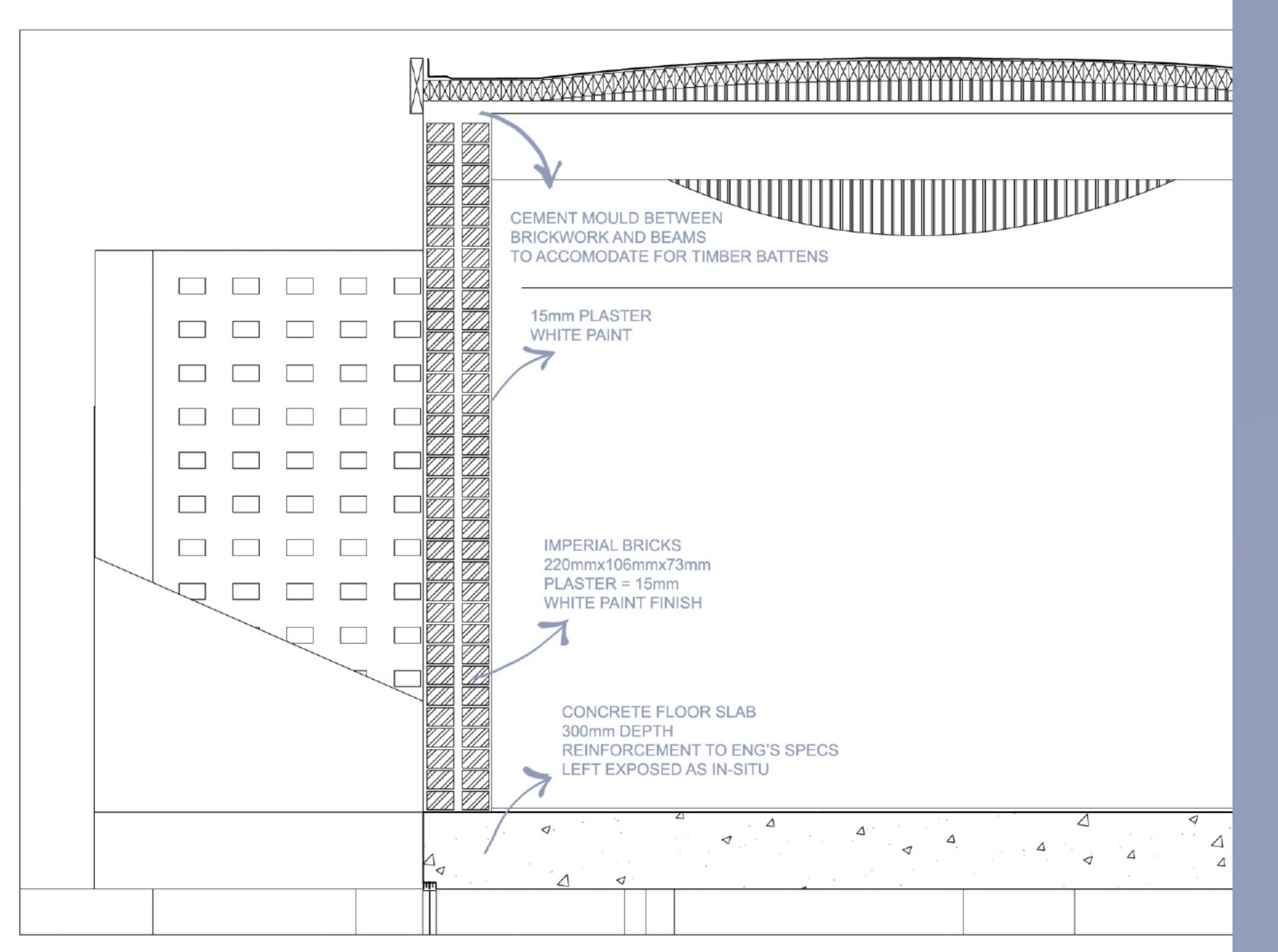
BACK

#### CEMENT FIREPLACE





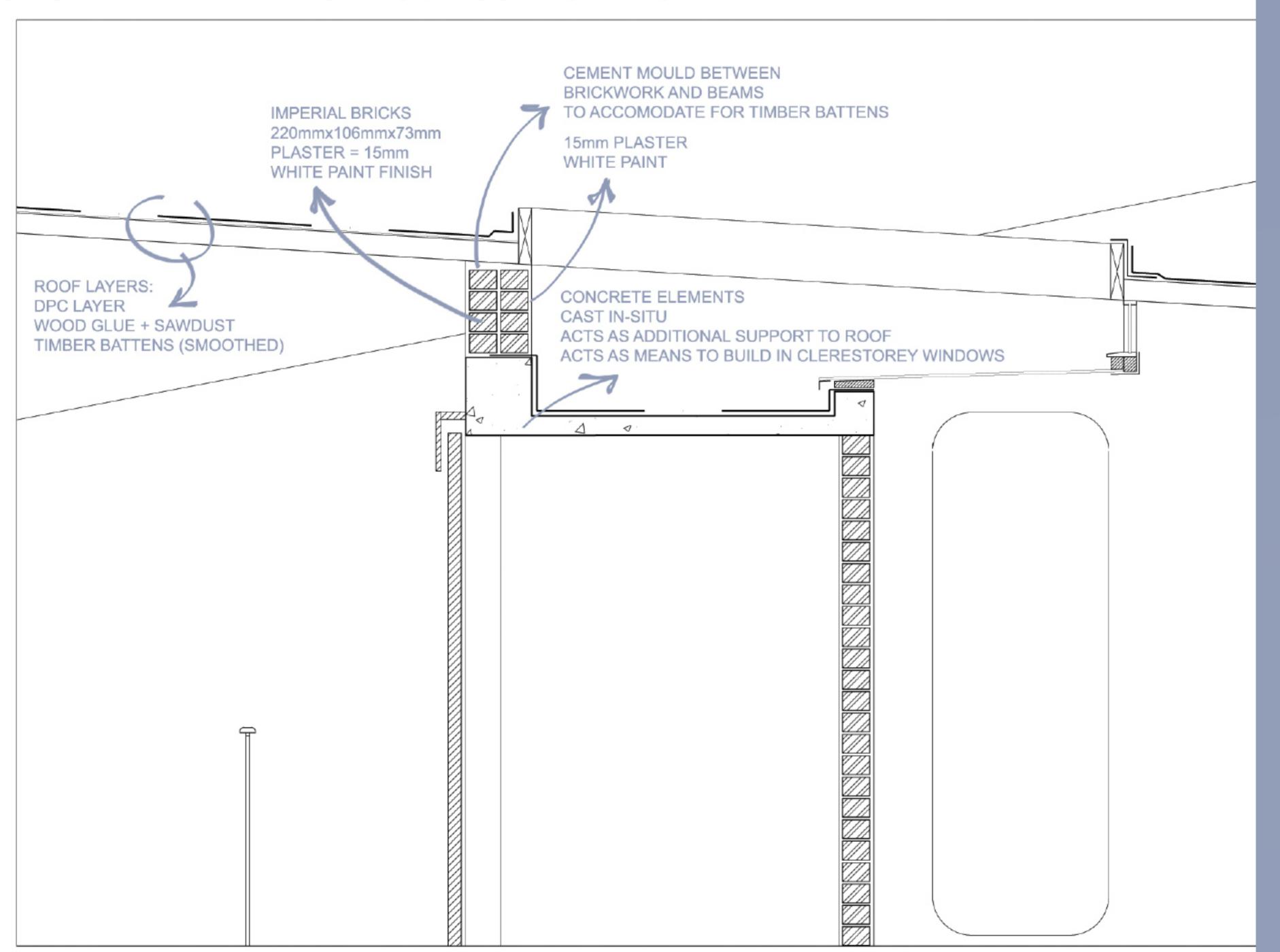
BACK





BACK

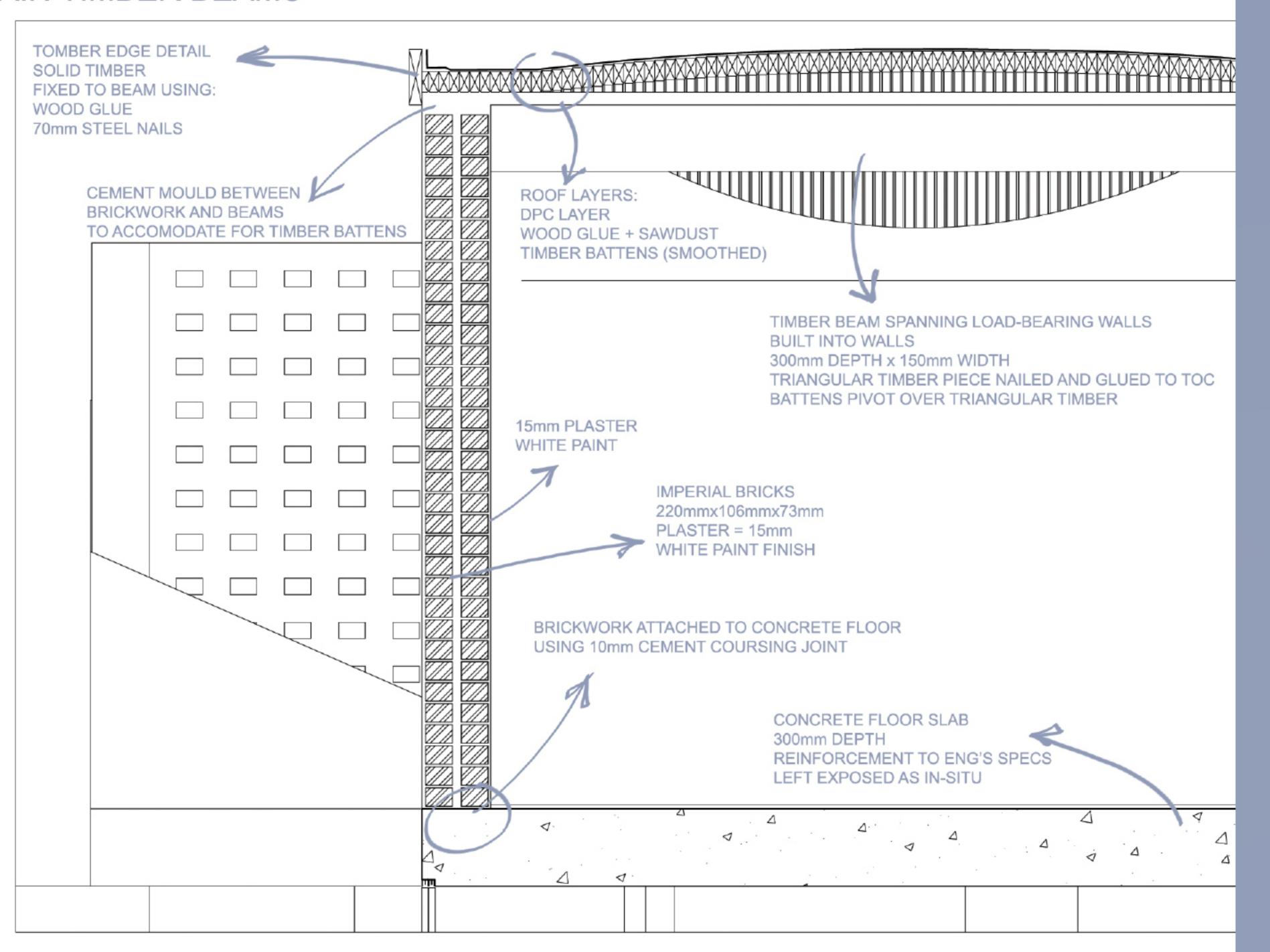
## CONCRETE ELEMENTS ABOVE CUPBOARDS





BACK

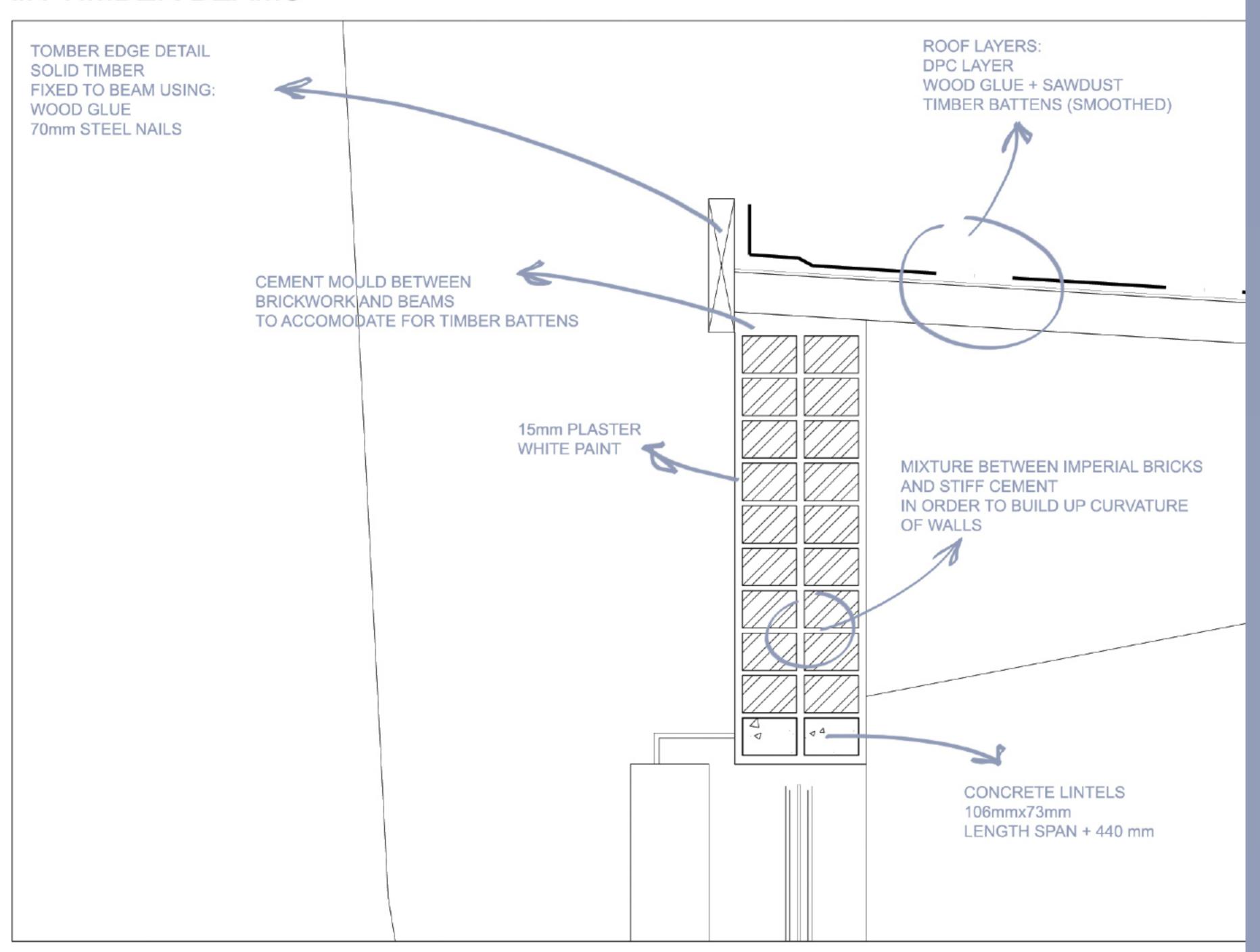
#### MAIN TIMBER BEAMS





BACK

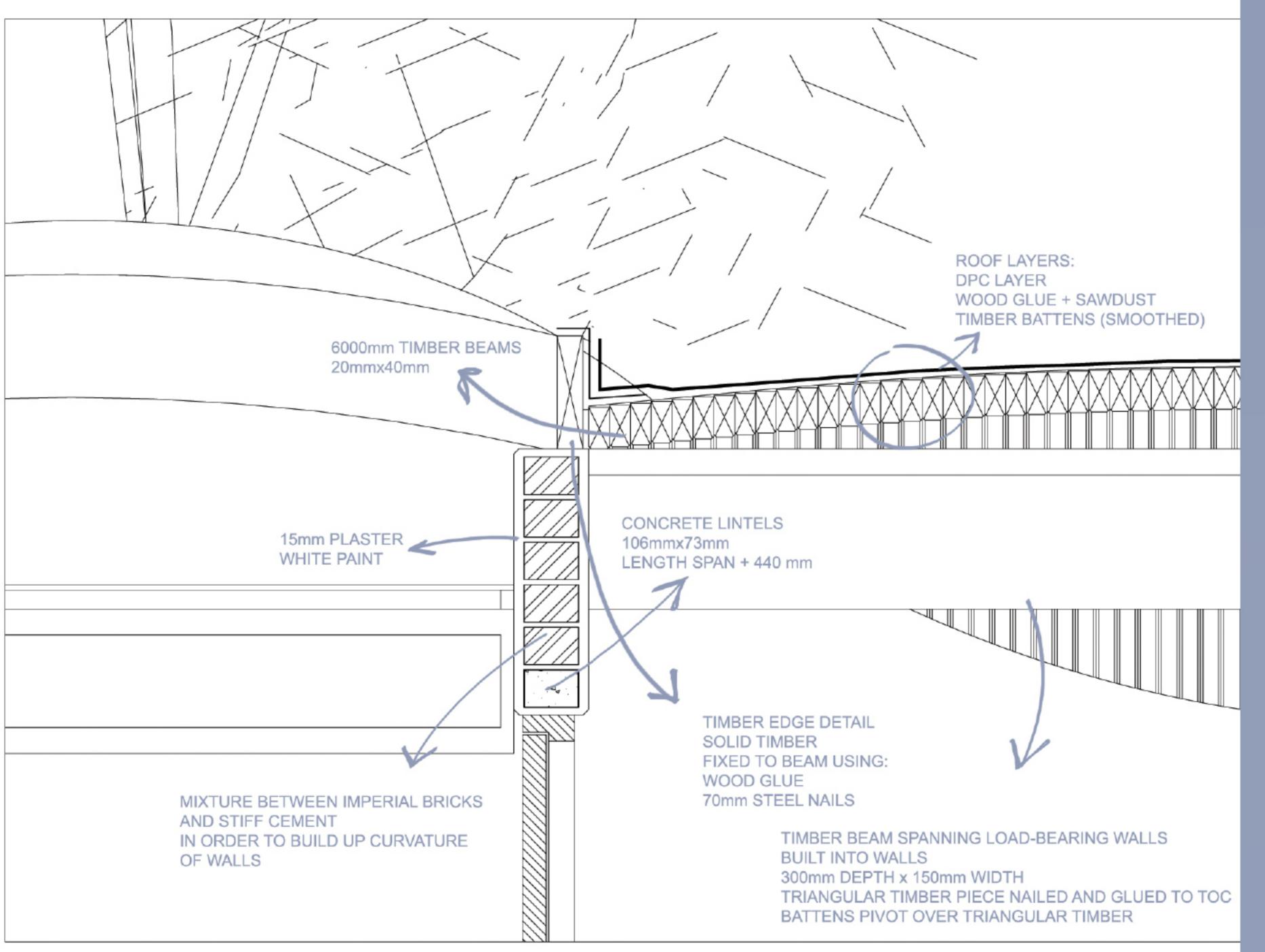
#### MAIN TIMBER BEAMS





BACK

#### **BATTENS**

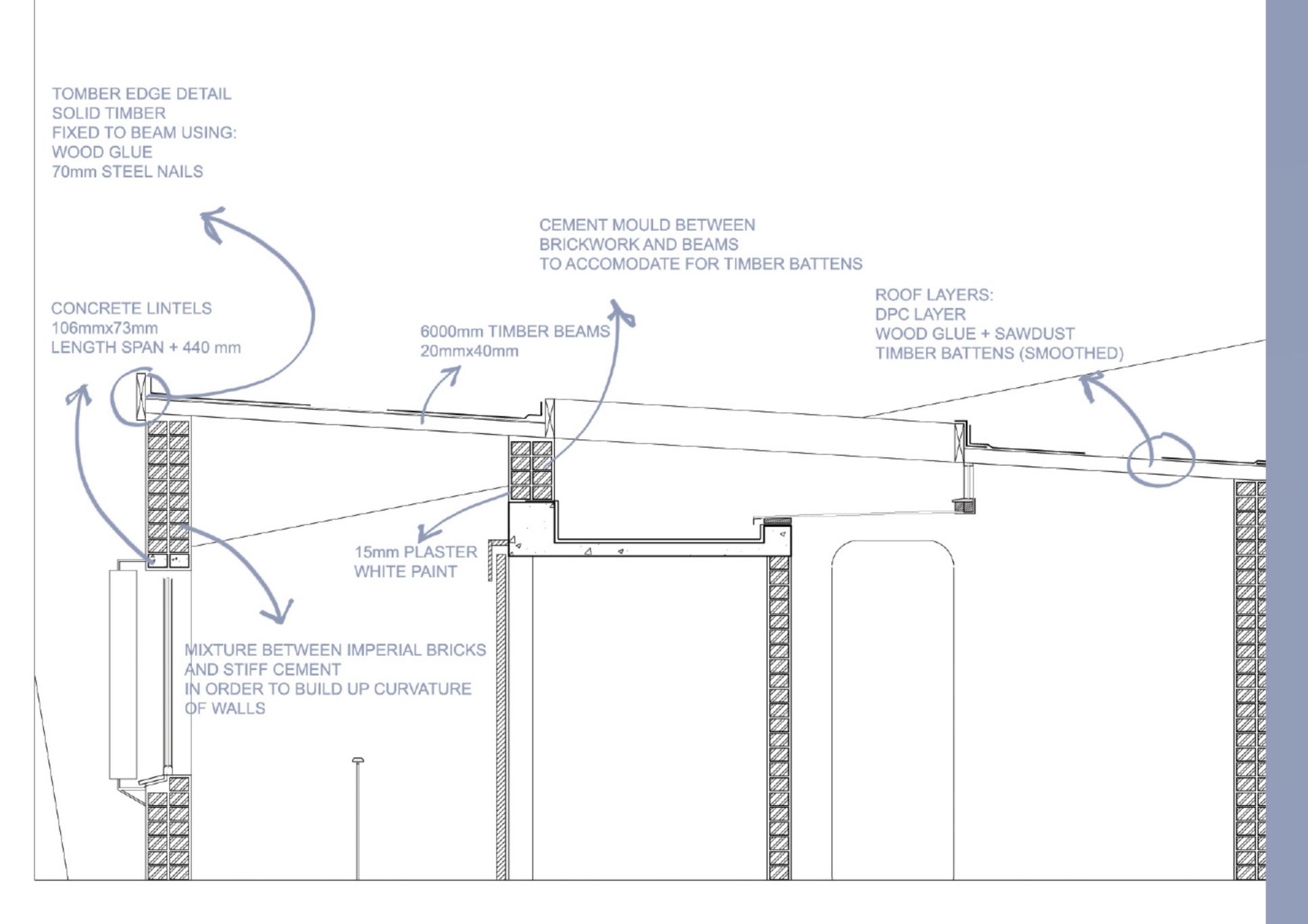




BACK

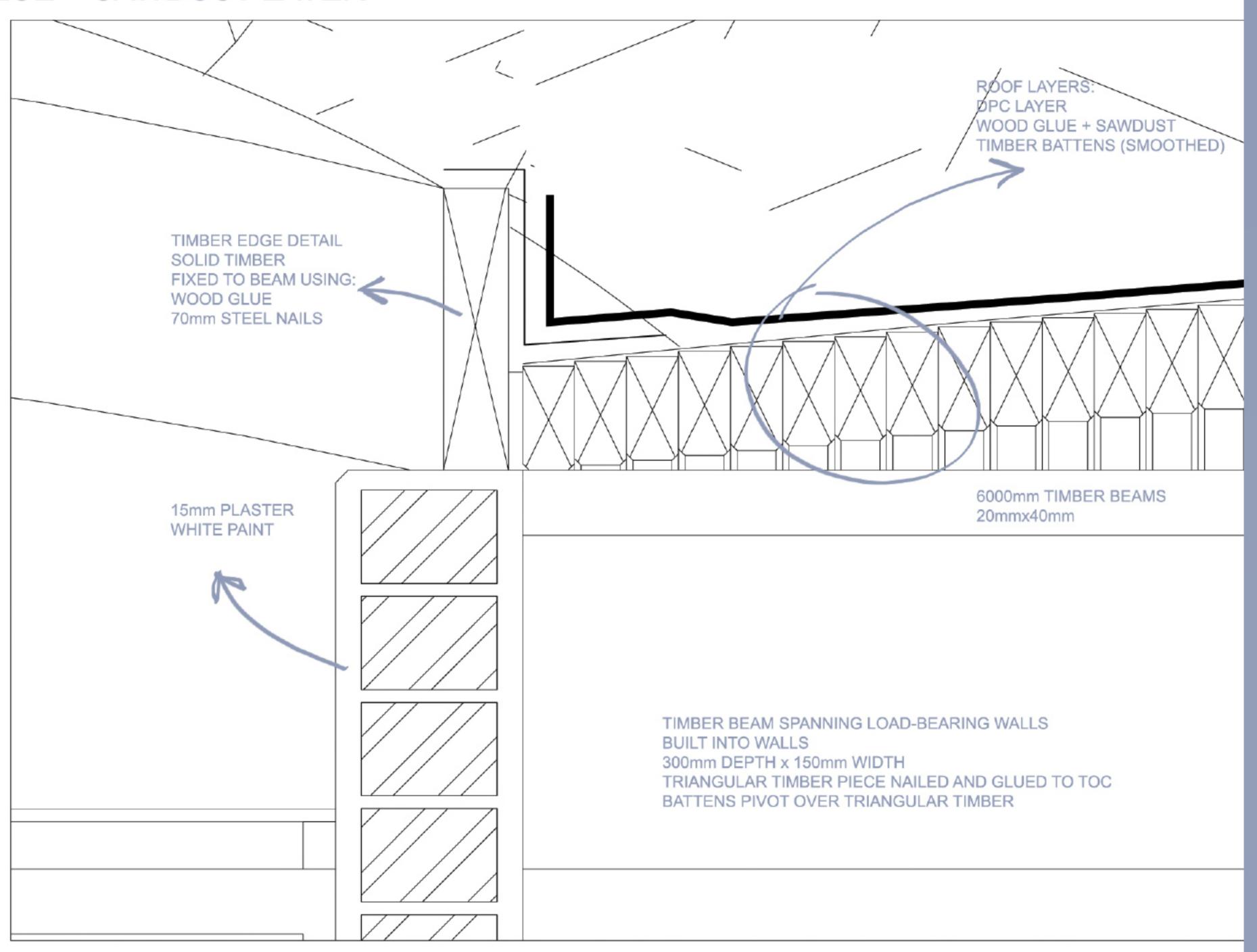
#### MAIN TIMBER BEAMS





BACK

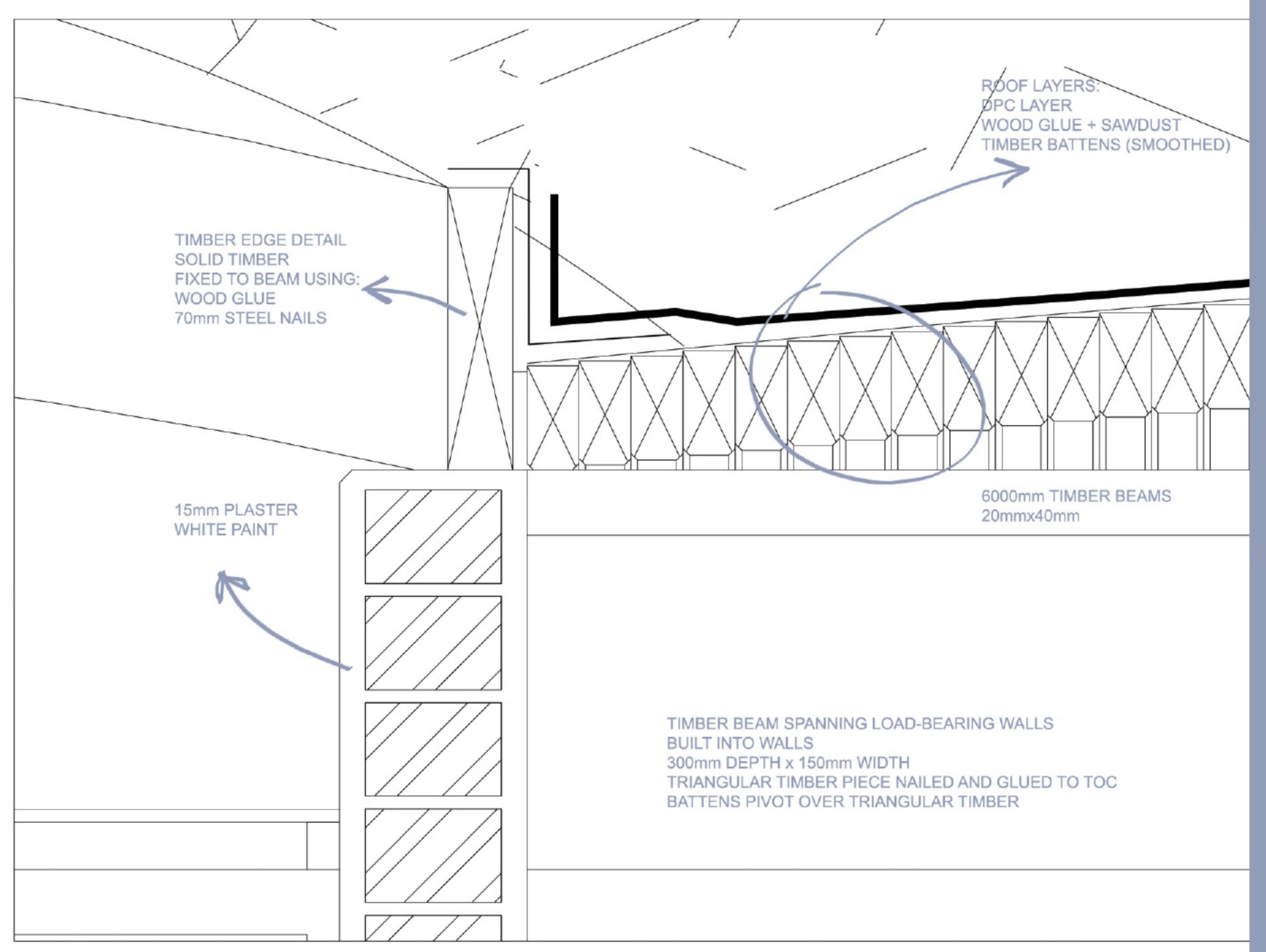
#### GLUE + SAWDUST LAYER





BACK

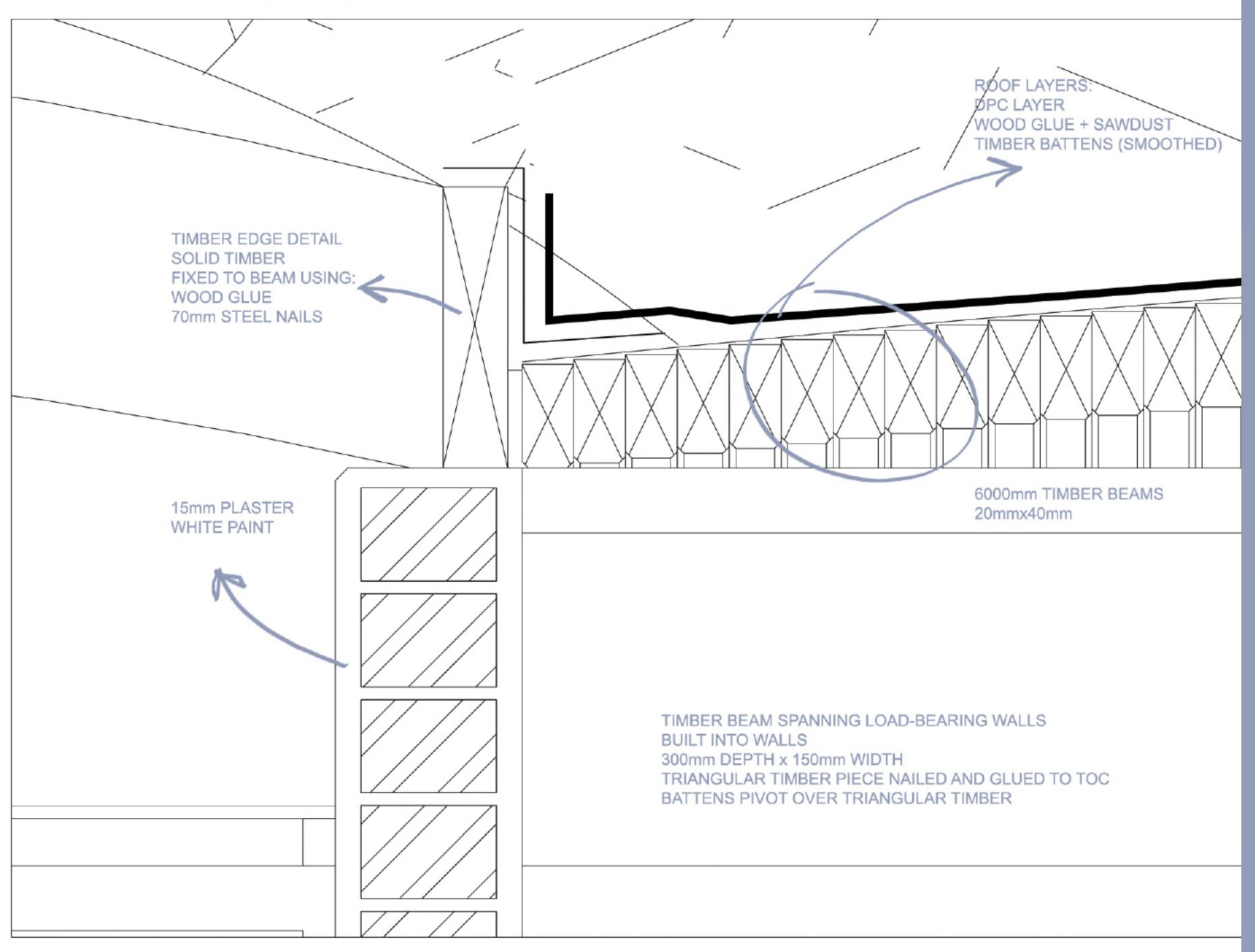
## TIMBER EDGE DETAIL





BACK

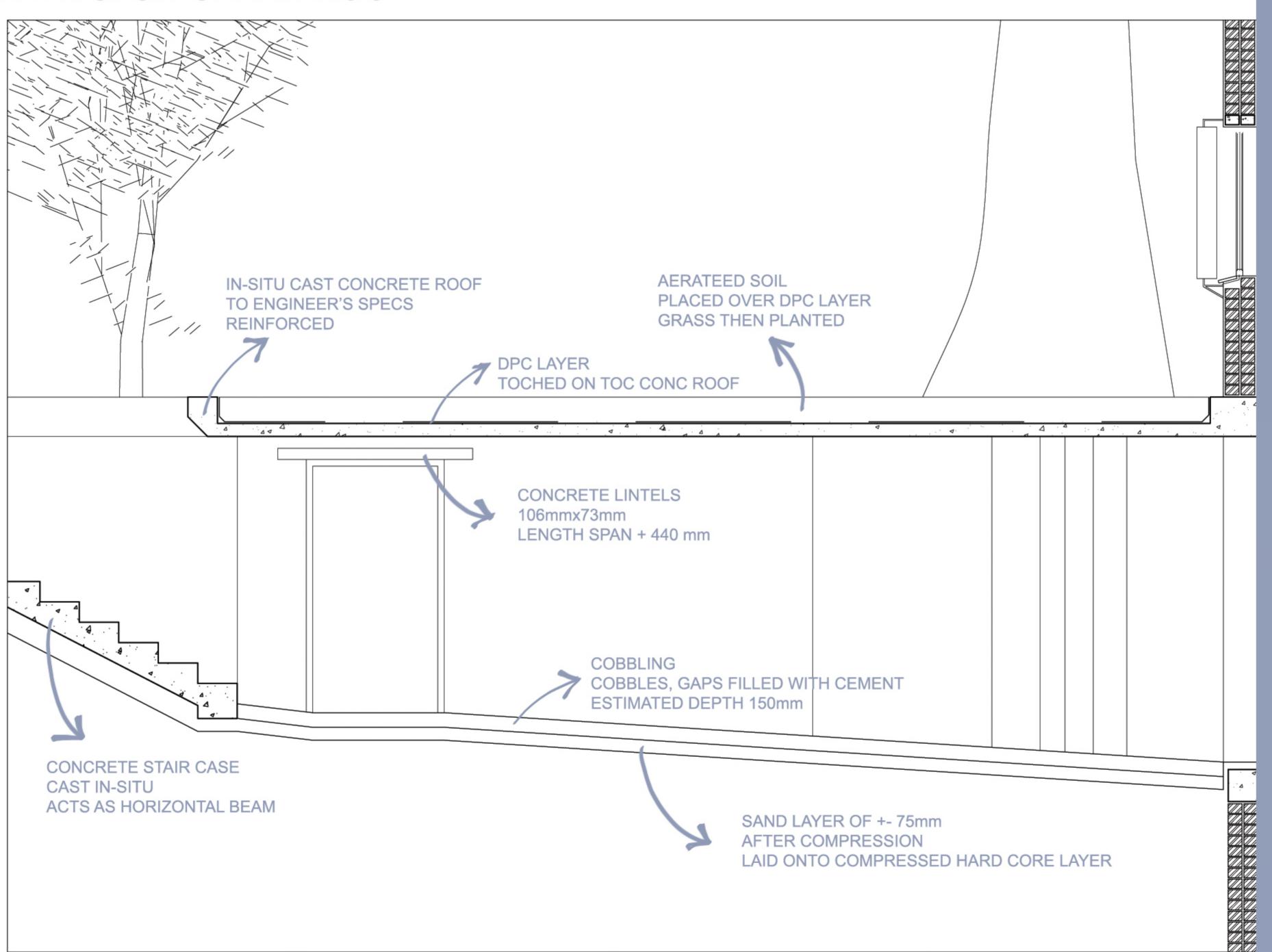
## ROOF WATERPROOFING LAYER





BACK

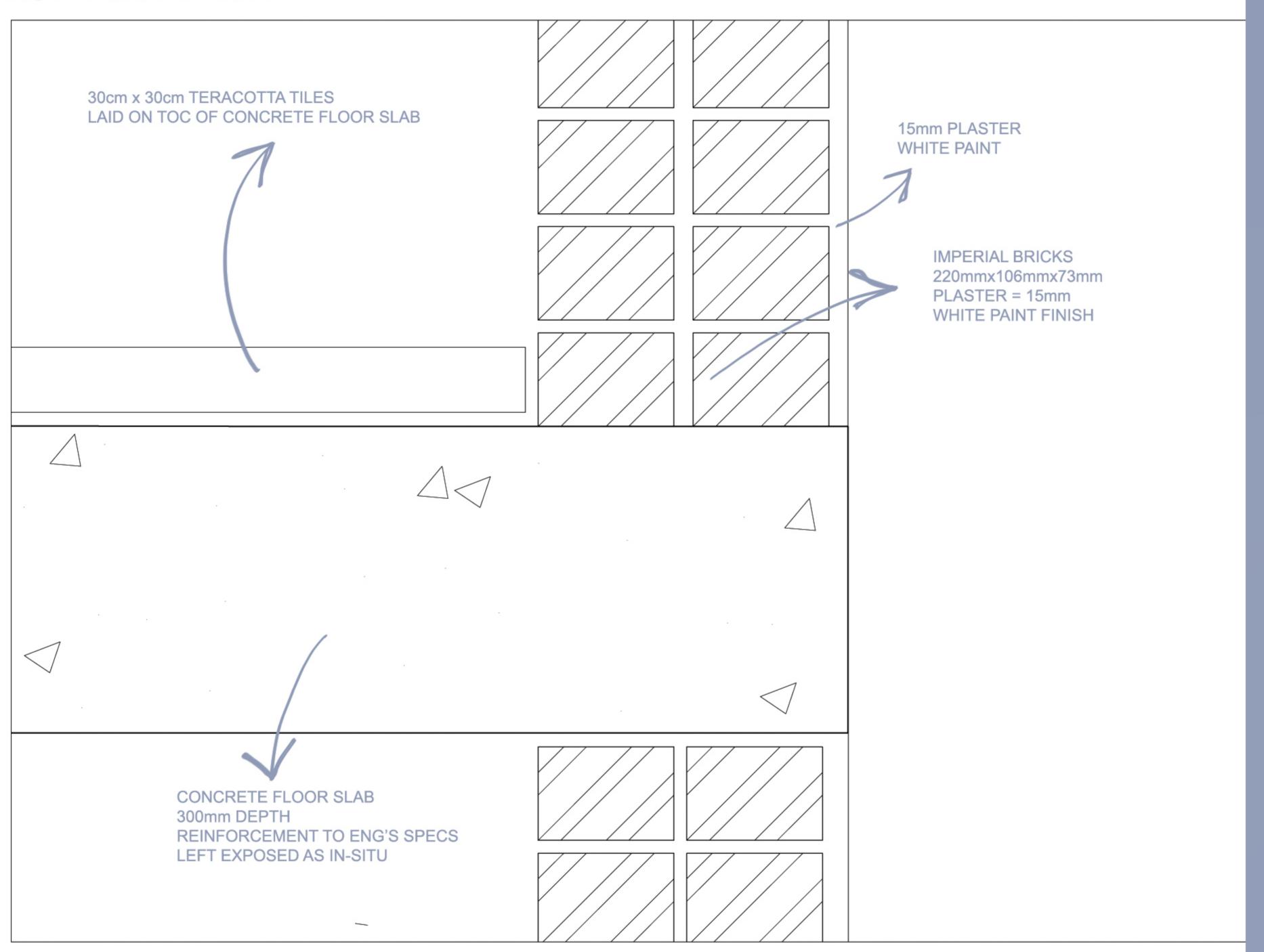
## SOIL ETC. ON GREEN ROOF





BACK

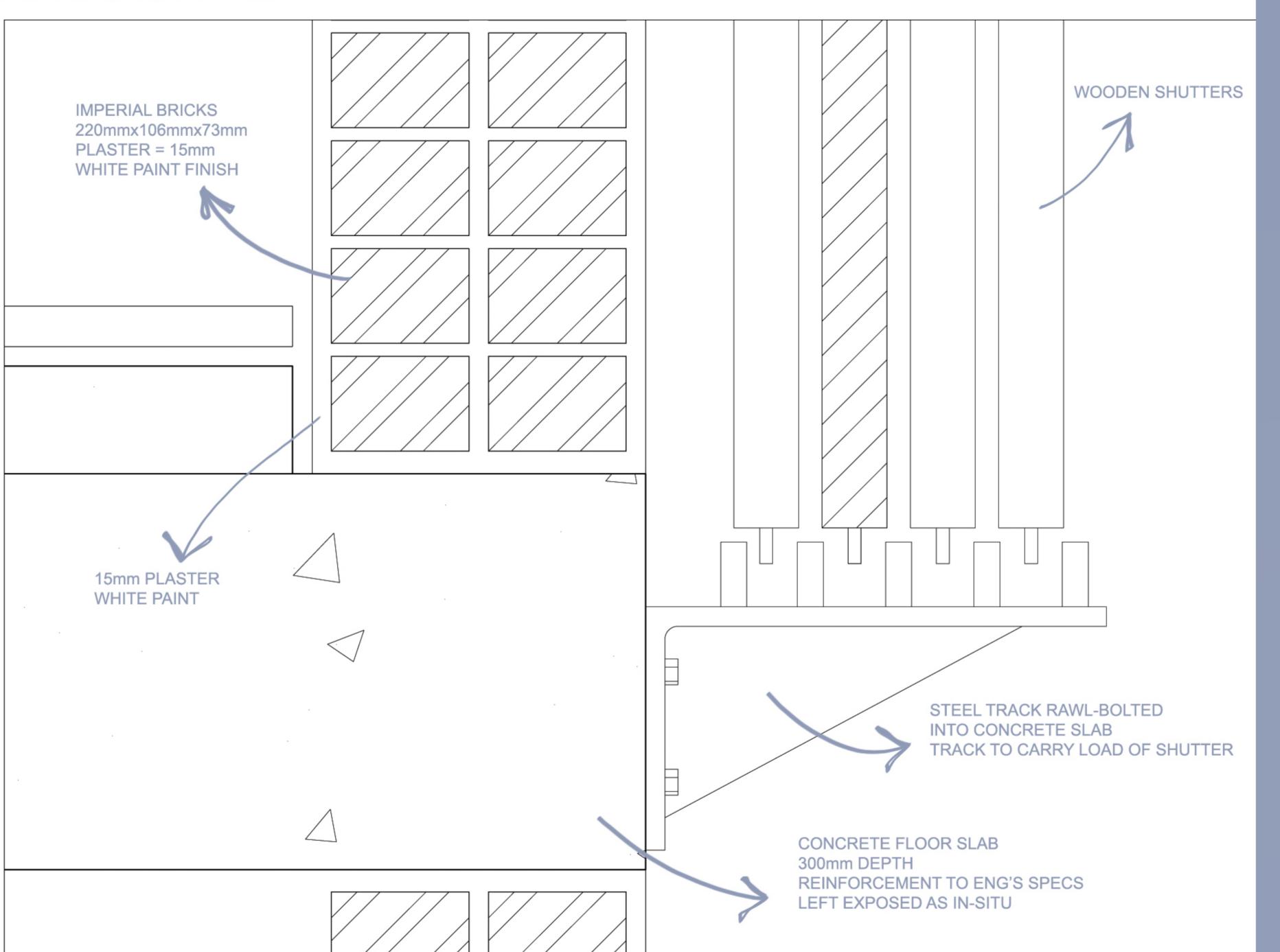
#### PLASTER AND PAINT





BACK

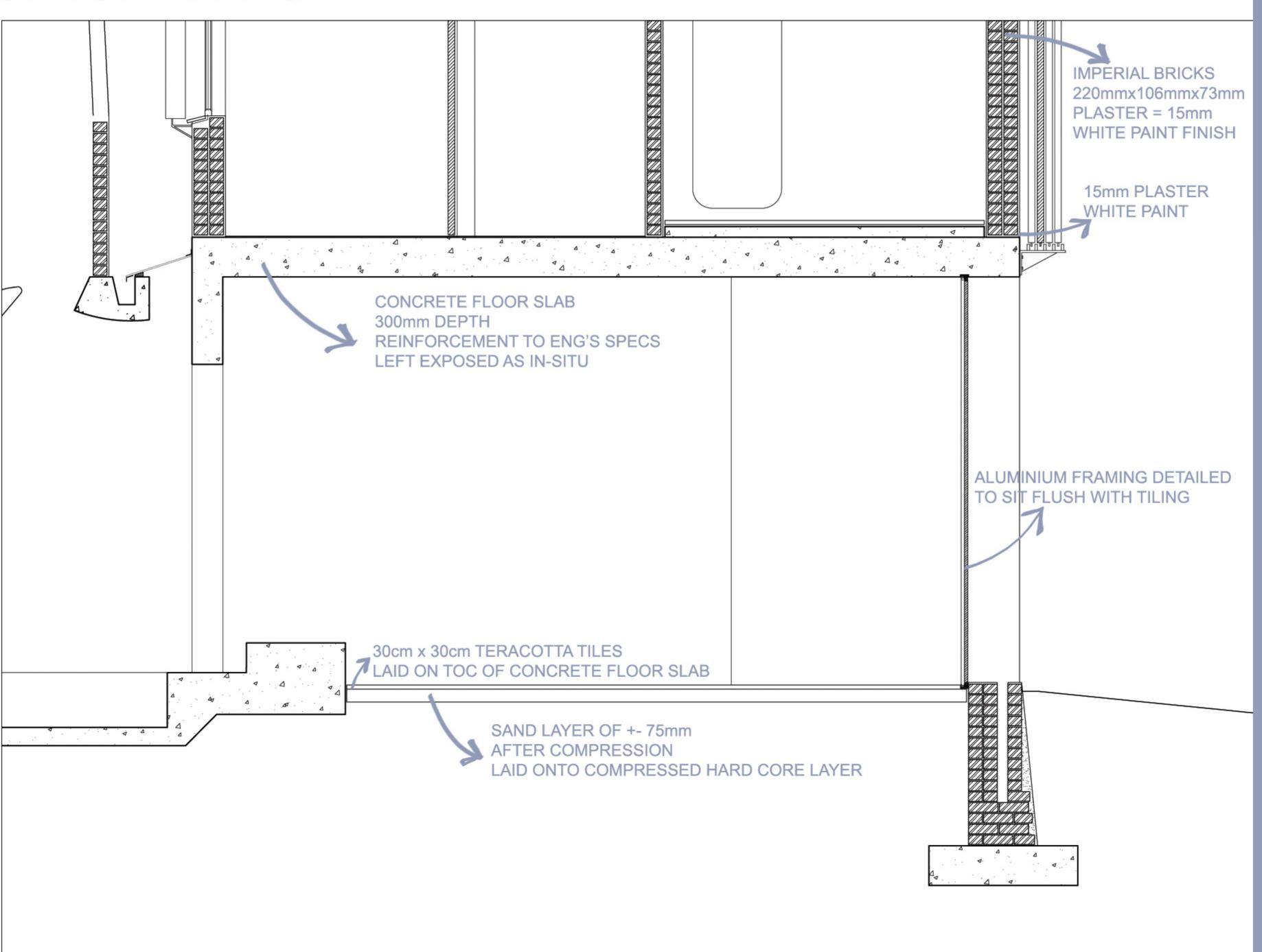
## SLIDING SHUTTERS





BACK

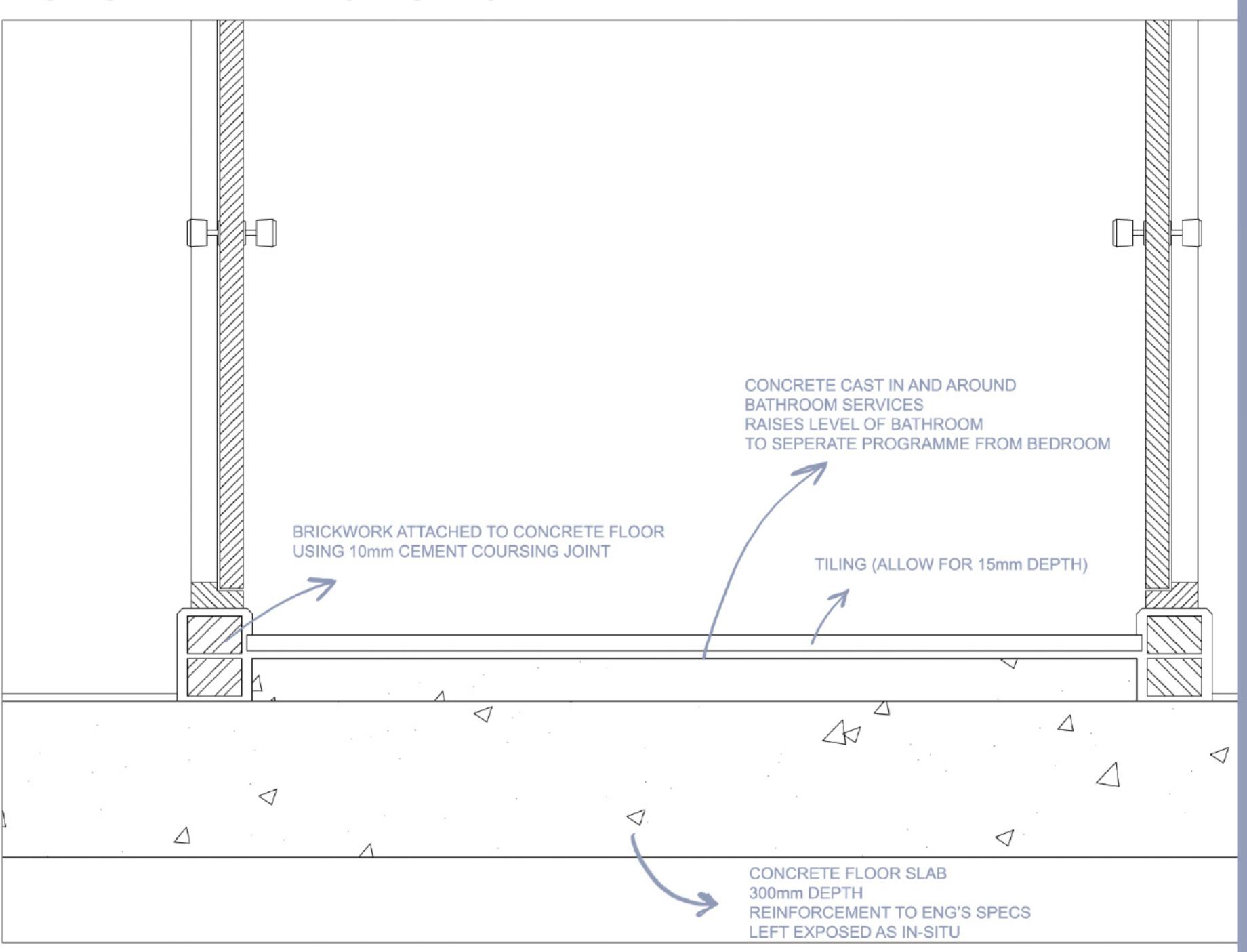
#### **ALUMINIUM FRAMING**





BACK

## TILING + SANITARY FIXTURES ETC.



HOME

BACK