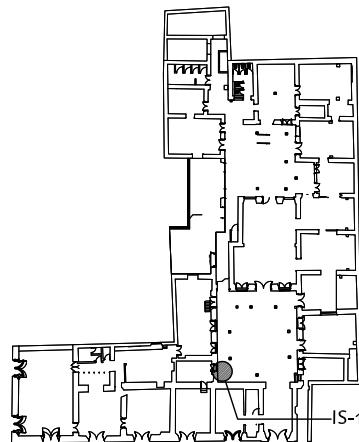


**APPENDIX C**

## Prospection Drawings

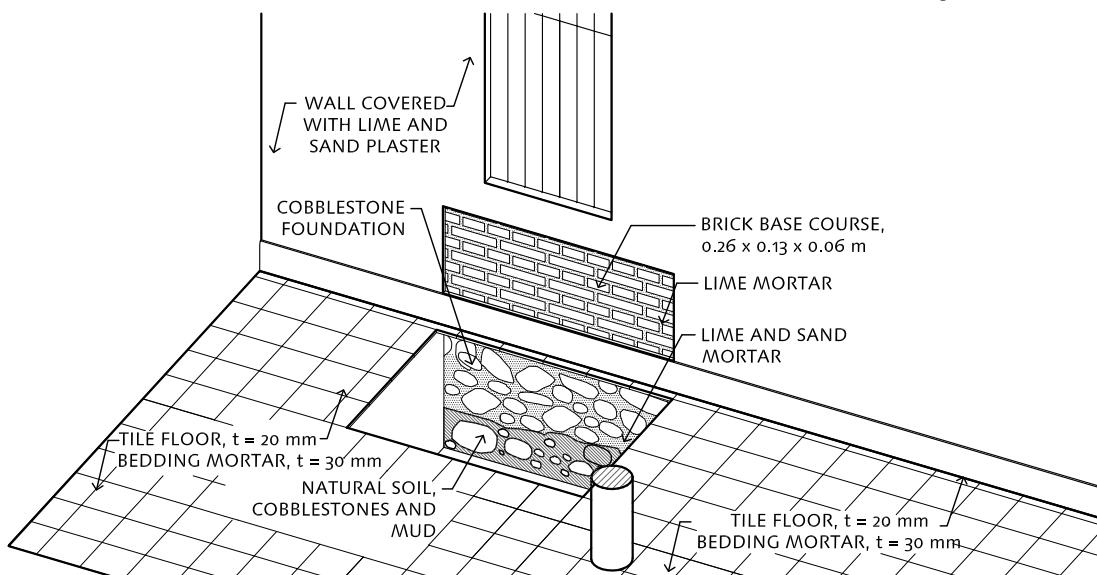
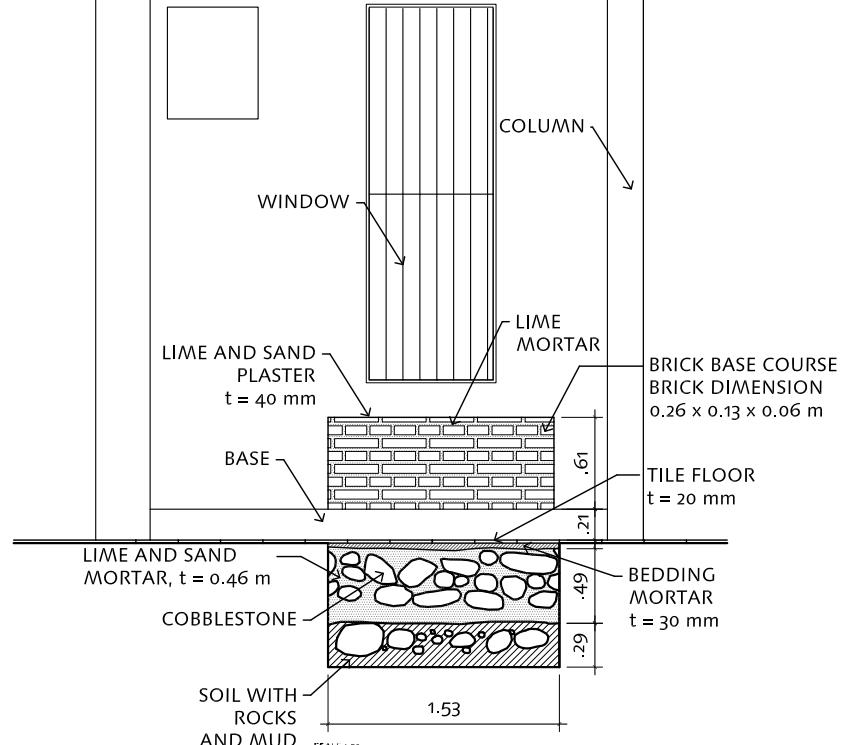
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## FIRST FLOOR REFERENCE PLAN

NO SCALE



## AXONOMETRIC

NO SCALE

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### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

Sheet No.:

Edited and Translated By:  
Jabdiel Zapata

HC-P-1

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Sheet Title: Structural Prospection  
IS-1



IS-1



IS-1

IS-1

THIS OPENING IS LOCATED AT THE FIRST PATIO AND HAS THE OBJECTIVE OF EXPLORING THE FOUNDATIONS.

THE FLOOR IS COVERED WITH CONCRETE TILE SET IN A CEMENT AND SAND MORTAR BED. BELOW THE TILES THERE IS DAMP SOIL WITH A LARGE QUANTITY OF COBBLESTONES HAVING A DIAMETER BETWEEN 0.20 m AND 0.30 m. THIS IS TYPICAL OF SOIL IN LIMA.

THE FOUNDATION OF THE WALL ADJACENT TO THE NORTHEAST SIDE OF PATIO IS ALSO CONSTRUCTED WITH COBBLESTONES SET IN A LIME AND SAND MORTAR AND IS APPROXIMATELY 0.46 m DEEP. BELOW THE FOUNDATION COBBLESTONES THERE IS A NATURAL COMPACTED CLAY SOIL CONTAINING LOTS OF COBBLESTONES.

IT IS IMPORTANT TO NOTE THAT BELOW THE FLOOR TILE, BRICK WALLS WERE FOUND. THE CONFIGURATION OF THESE WALLS IS DIFFERENT FROM THE WALLS OF THE CURRENT BUILDING, SUGGESTING THAT THEY ARE THE REMAINS OF AN EARLIER STRUCTURE ON THE SITE.

AT THE WALL ABOVE, FIRED BRICK SET IN A LIME AND SAND MORTAR WAS OBSERVED IN AN AREA CORRESPONDING TO THE WINDOW SILL. HOWEVER, IN A SMALL OPENING BETWEEN THE WINDOWS, MUD BRICKS WERE OBSERVED AT THE SAME LEVEL AS THE FIRED BRICKS IN THE FIRST OPENING. THIS WOULD INDICATE THAT THE WINDOW OPENINGS ARE REINFORCED WITH FIRED BRICKS. A SIMILAR SITUATION WAS ALSO OBSERVED AT THE WINDOW OPENINGS IN THE SECOND PATIO (NO OPENINGS WERE MADE, AS THE BRICK WAS VISIBLE AS A RESULT OF THE POOR CONDITION OF THE SECOND PATIO).

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October 2011

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Scale:  
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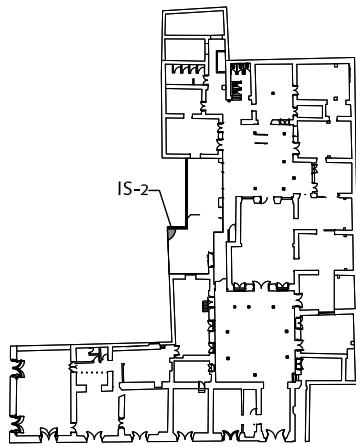
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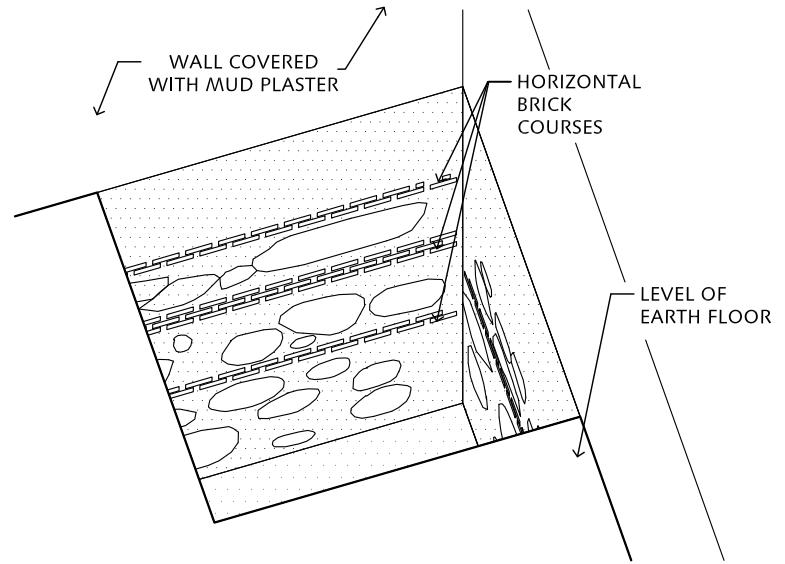
@Seismicisolation  
Sheet Title: Structural Prospection  
IS-1

HC-P-2



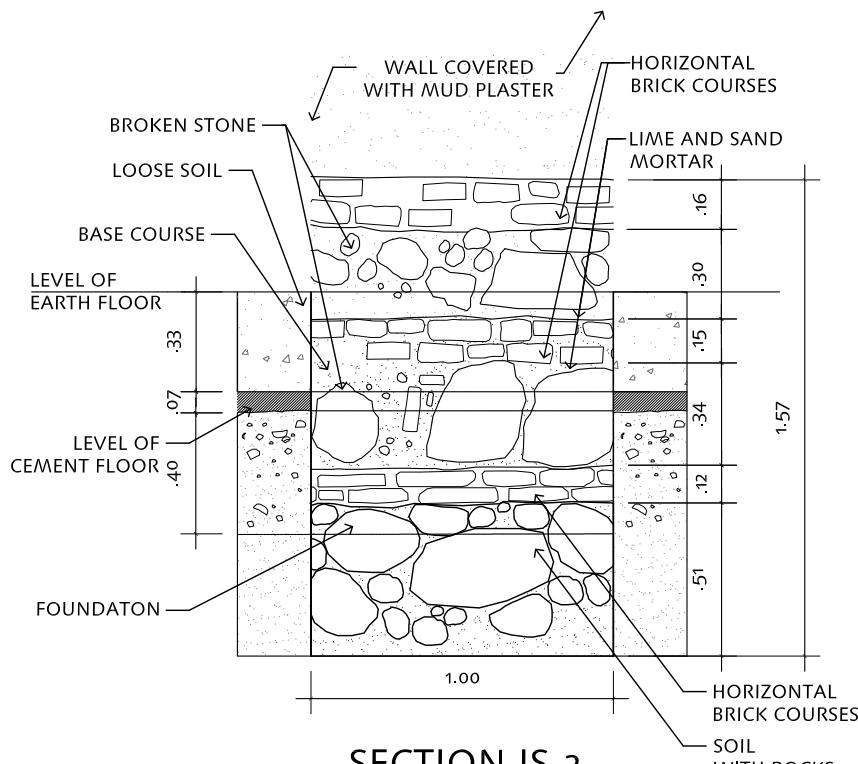
**FIRST FLOOR  
REFERENCE PLAN**

NO SCALE



**ISOMETRIC**

NO SCALE



**SECTION IS-2**

SCALE 1:25

True scale when printed on 8-1/2" x 11" sheet.

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Lima, Perú

Drafted By:  
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Supervisor:  
Arch. Mirna Soto

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Sheet Title: Structural Prospection  
IS-2

**HC-P-3**



IS-2



IS-2



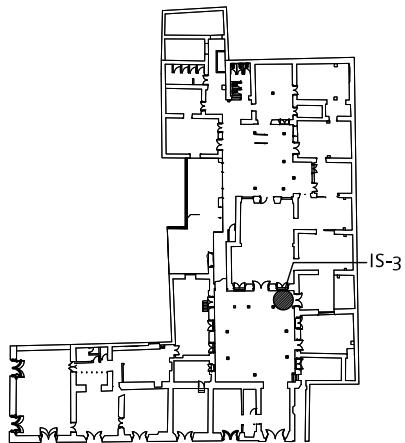
IS-2

## IS-2

THIS OPENING IS LOCATED NEAR THE SECOND PATIO, IN AN AREA OF THE BUILDING THAT HAS COLLAPSED, AND IT ALLOWS ONE TO OBSERVE THE FOUNDATION AT THE PARTY WALL WITH THE BUILDING TO THE SOUTHEAST.

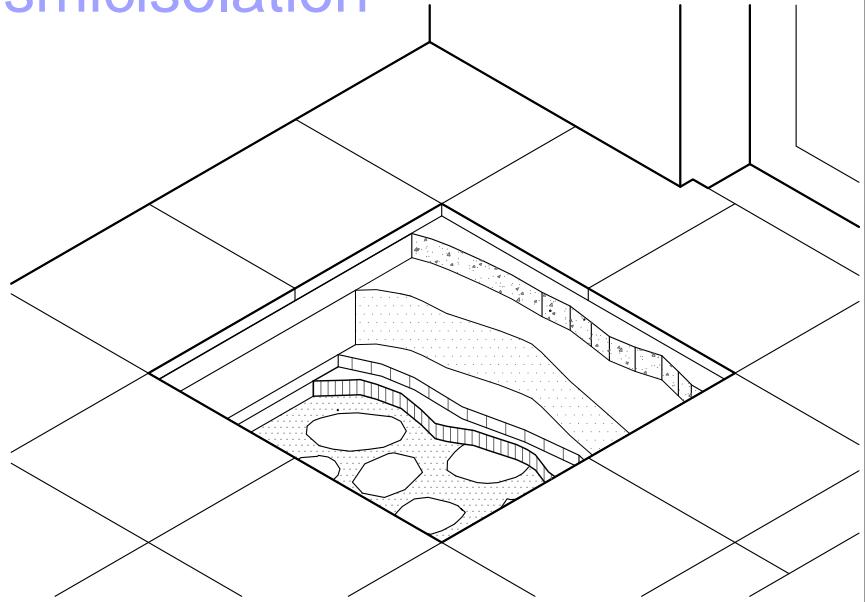
AT THE HIGHEST LEVEL THERE IS A 0.33 m DEEP LAYER OF EARTH ORIGINATING FROM THE COLLAPSE OF THE CEILINGS AND WALLS IN THIS AREA. BELOW THIS IS A CONCRETE SLAB FLOOR, HAVING A DEPTH OF 0.07 m. THIS IS FOLLOWED BY A 0.40 m DEEP LAYER OF DAMP AND LOOSE SOIL, WITH CERAMIC TILE FRAGMENTS DISTRIBUTED THROUGHOUT IT. BELOW THIS IS A LAYER OF COMPACTED SOIL WHICH CORRESPONDS TO THE HISTORIC FLOOR LEVEL.

AT THE BASE OF THE WALL, ONE CAN OBSERVE BOTH THE FOUNDATION AND BASE COURSE, WHICH HAVE AN OVERALL HEIGHT OF 1.57 m AND ARE CONSTRUCTED WITH RUBBLE STONES SET IN A LIME AND SAND MORTAR, INTERSPERSED WITH TWO CONSECUTIVE COURSES OF FIRED BRICK MASONRY SET IN A LIME AND SAND MORTAR. ABOVE THE BASE COURSE, THE WALL IS CONSTRUCTED WITH MUD BRICKS AND MUD MORTAR.



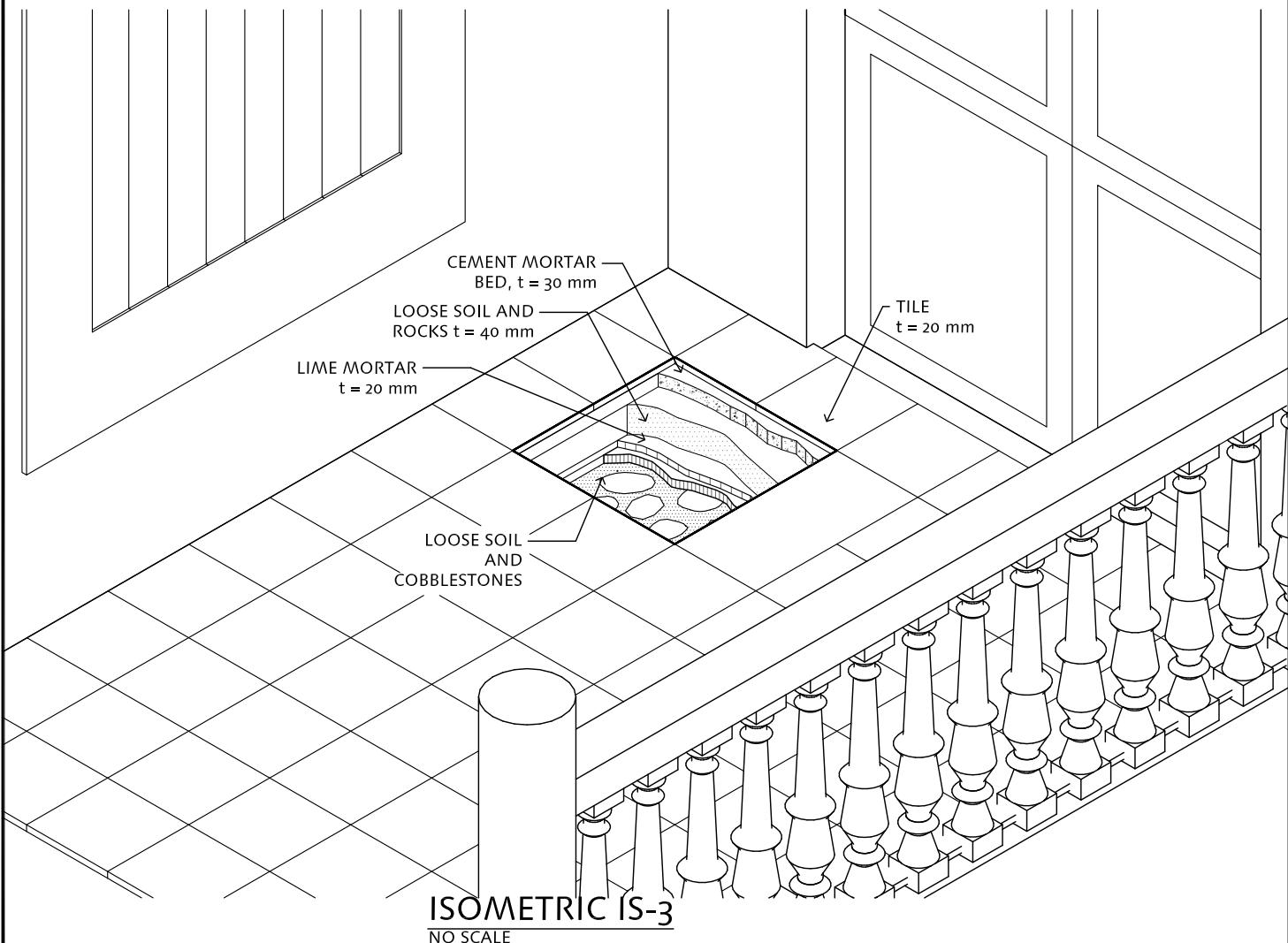
**FIRST FLOOR  
REFERENCE PLAN**

NO SCALE



**DETAIL OF IS-3**

NO SCALE



**ISOMETRIC IS-3**

NO SCALE

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The Earthen Architecture Initiative



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Lima, Perú

Sheet Title:

Structural Prospection  
**IS-3**

Drafted By:  
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Date:  
October 2011

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Arch. Mirna Soto

Scale:  
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**HC-P-5**

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IS-3



IS-3

IS-3

THIS OPENING IS LOCATED AT THE ELEVATED PLATFORM AT THE SOUTHWEST SIDE OF THE PRINCIPAL PATIO. THE FLOOR IS CONSTRUCTED WITH CONCRETE TILE SET IN A LIME AND SAND MORTAR BED. BELOW THIS IS A 0.04 m DEEP LAYER OF LOOSE SOIL, FOLLOWED BY A LAYER OF COMPACTED SOIL, AND A LAYER OF MUD AND LIME MORTAR. AT A TOTAL DEPTH OF 0.15 m, THERE ARE COBBLESTONES SET IN MUD, WHICH ACTS AS A FILLING MATERIAL FOR THE PLATFORM.

True scale when printed on 8-1/2" x 11" sheet.

**SEISMIC RETROFITTING PROJECT**

The Earthen Architecture Initiative



Building:

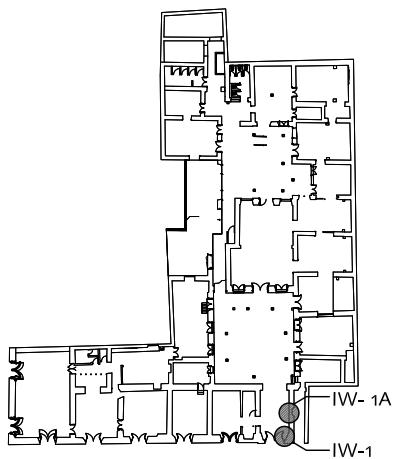
HOTEL COMERCIO  
Lima, PerúDrafted By:  
Fernando OlmosDate:  
October 2011Supervisor:  
Arch. Mirna SotoScale:  
As notedFacilitator:  
Universidad Católica Sedes Sapientiae

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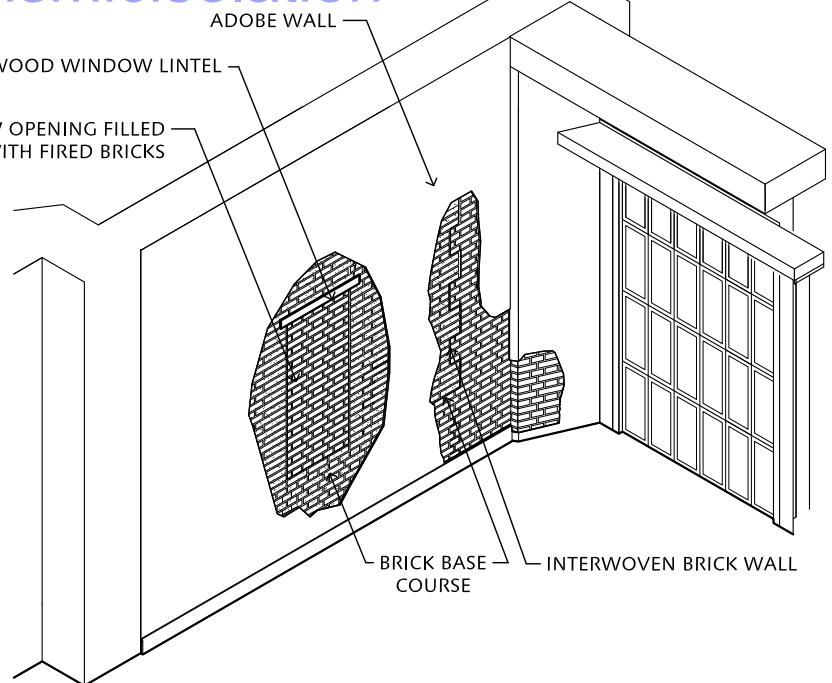
HC-P-6

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Sheet Title: Structural Prospection  
IS-3



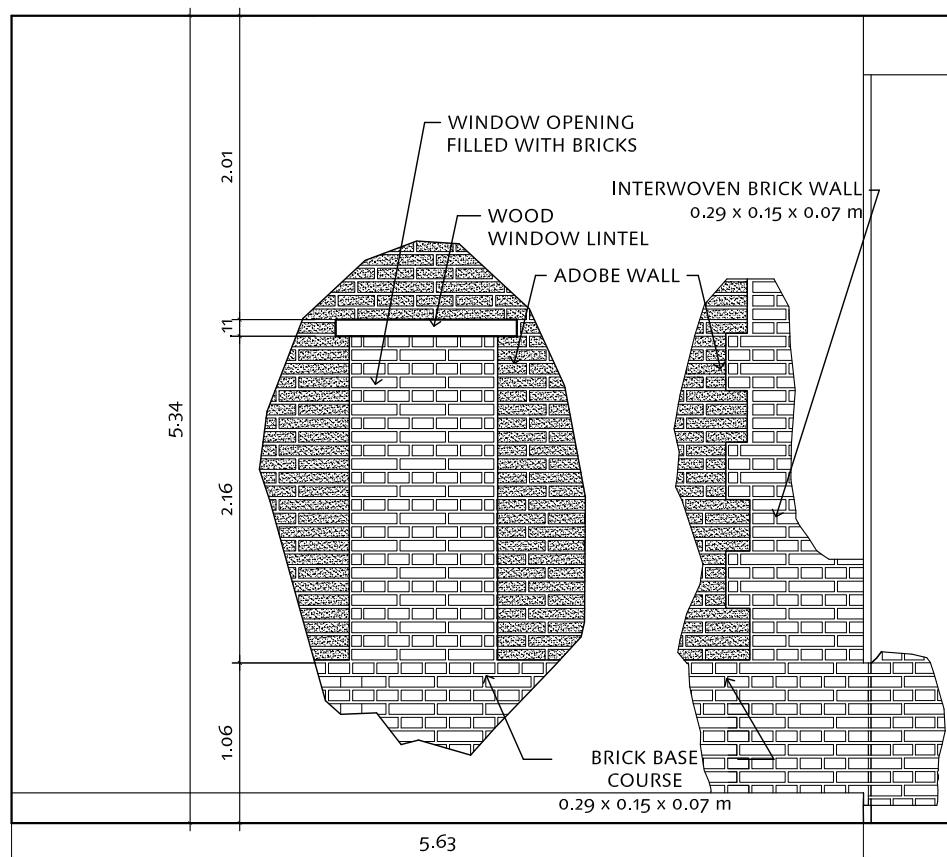
**FIRST FLOOR  
REFERENCE PLAN**

NO SCAI F



**ISOMETRIC IW-1 and 1A**

NO SCALE



**ELEVATION IW-1 and 1A**

SCALE 1:50

True scale when printed on 8-1/2" x 11" sheet.

**SEISMIC RETROFITTING PROJECT**

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
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Sheet Title:  
Structural Prospections  
IW-1 and IA

**HC-P-7**

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IW- 1



IW- 1



IW- 1



IW- 1



IW- 1

## IW-1 - 1A

THESE OPENINGS ARE LOCATED IN THE WEST CORNER OF THE ENTRY HALL, NEAR THE ENTRANCE PORTAL. THEY SHOW A FIRED BRICK BASE WITH A MUD BRICK AND MORTAR WALL ABOVE. THE ENTRANCE PORTAL IS CONSTRUCTED WITH FIRED BRICKS SET IN A LIME AND SAND MORTAR, AND THE BRICKS CONTINUE INTO THE WALL THAT IS PERPENDICULAR TO THE PORTAL AND ARE THEN INTERWOVEN WITH THE ADJACENT MUD BRICKS.

IN THE CENTER OF THE SOUTHWEST WALL THERE IS WINDOW OPENING THAT HAS BEEN INFILLED WITH FIRED BRICKS. THE INFILLED OPENING HAS A FIRED BRICK SURROUND ABOVE THE BASE COURSE AND A WOOD LINTEL.

ALL OF THESE MATERIALS ARE COVERED WITH A THICK PLASTER OF LIME, SAND, AND CEMENT.

### SEISMIC RETROFITTING PROJECT

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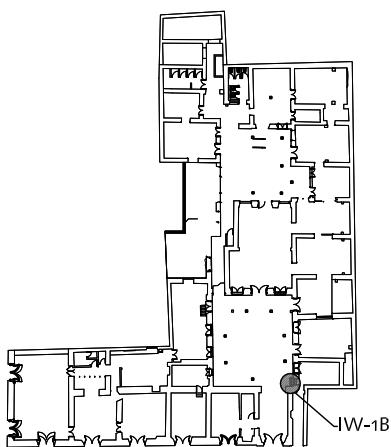
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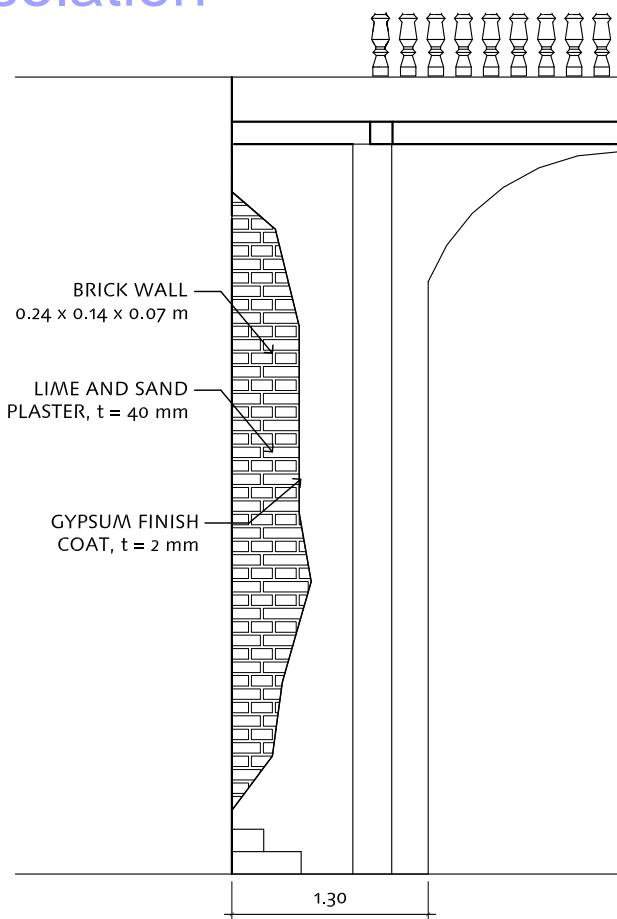
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Structural Prospections  
IW-1 and IA

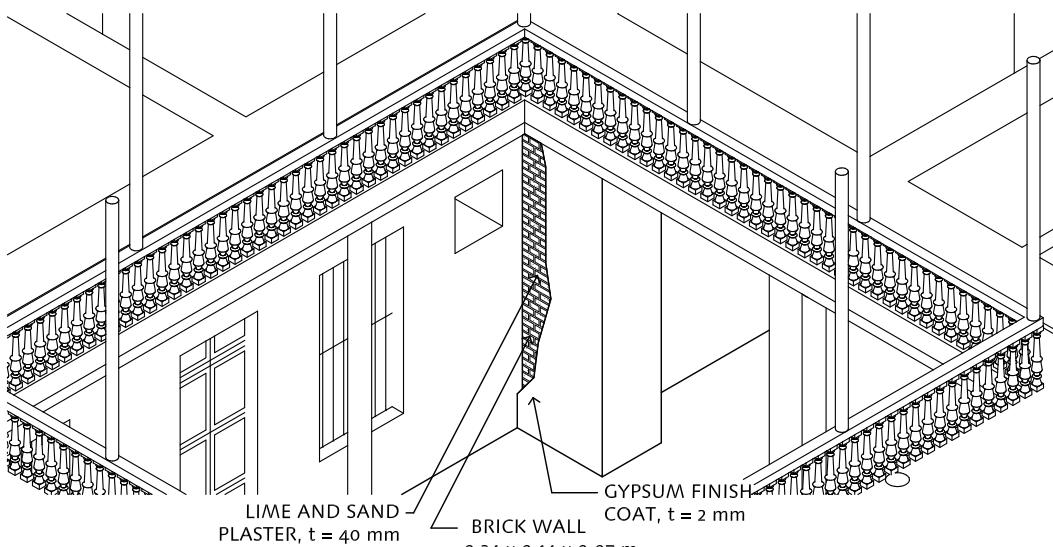


## FIRST FLOOR REFERENCE PLAN

NO SCALE



**ELEVATION IW-1B**  
SCALE 1:50



**ISOMETRIC IW-1B**

NO SCALE

True scale when printed on 8-1/2" x 11" sheet.

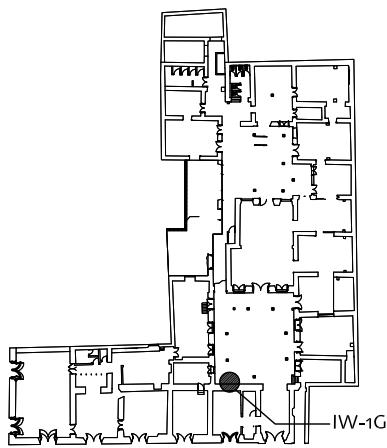


IW- 1B

## IW-1B

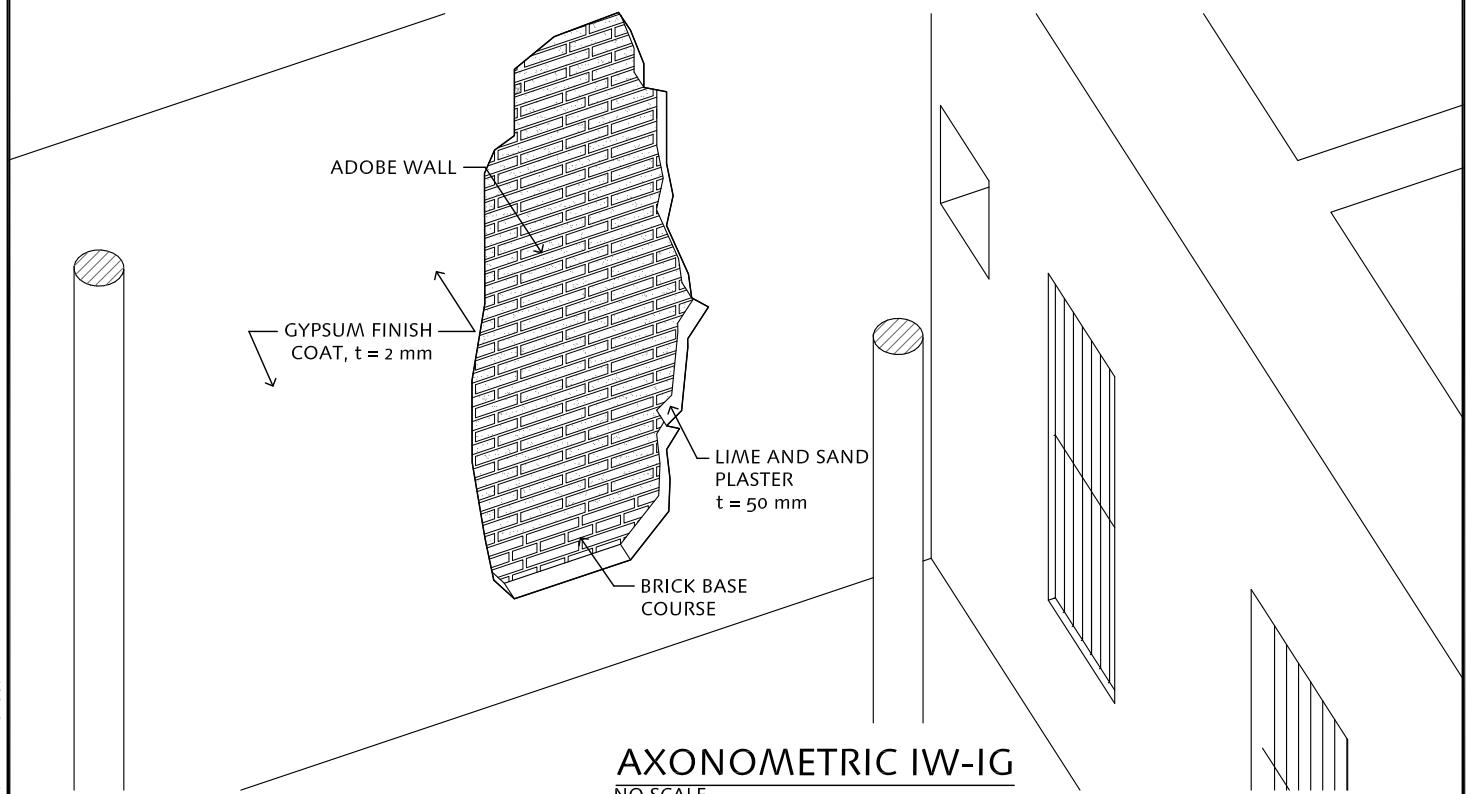
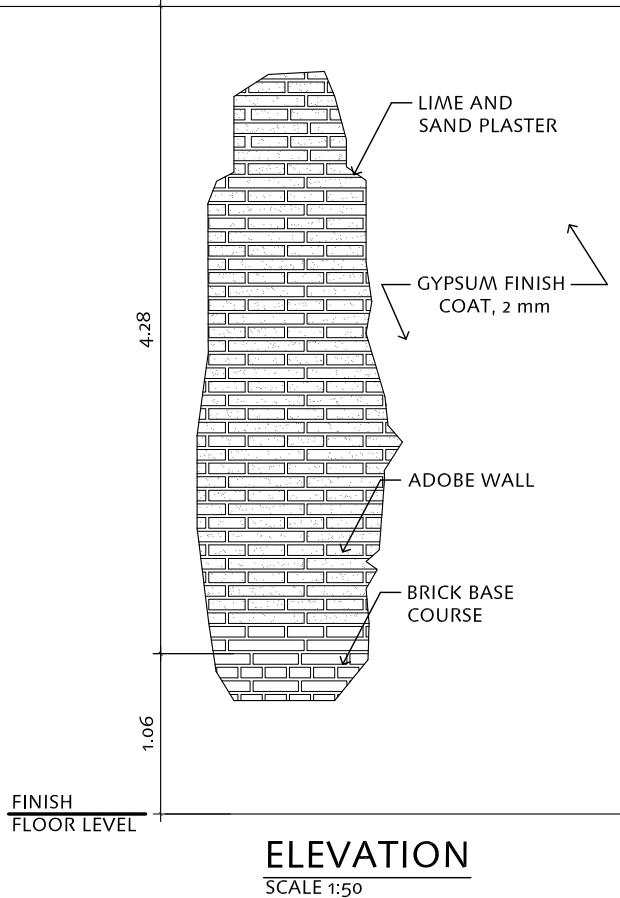
THIS DETAIL IS LOCATED ON THE WALL THAT SEPARATES THE ENTRY HALL FROM THE FIRST PATIO. A SERIES OF SMALL HOLES REVEALED PILLARS AND AN ARCH CONSTRUCTED OF FIRED BRICK SET IN A LIME AND SAND MORTAR. THE 40 mm THICK PLASTER CONSISTS OF LIME AND SAND WITH SOME CEMENT COVERED BY A GYPSUM FINISH COAT AND PAINT.

True scale when printed on 8-1/2" x 11" sheet.



**FIRST FLOOR  
REFERENCE PLAN**

NO SCALE



True scale when printed on 8-1/2" x 11" sheet.

**SEISMIC RETROFITTING PROJECT**

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Date:

October 2011

Supervisor:

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Scale:

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Sheet Title:

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IW- 1G

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IW-1G

## IW-1G

THIS DETAIL IS LOCATED IN THE FIRST PATIO, ON A WALL OPPOSITE THE STAIRCASE. IT SHOWS A BRICK BASE COURSE, SET IN A LIME AND SAND MORTAR, RISING TO A HEIGHT OF 1.06 m ABOVE THE FLOOR LEVEL IN THE PATIO. ABOVE THIS ARE MUD BRICKS SET IN A MUD MORTAR. IT WAS ALSO POSSIBLE TO OBSERVE THE OPPOSITE SIDE OF THIS WALL FROM THE SMALL AREA BELOW THE STAIR LANDING. HERE, ONE COULD OBSERVE THE TOP OF THE FOUNDATION WHICH CONSISTS OF COBBLESTONES SET IN A LIME AND SAND MORTAR, OVER WHICH ARE THREE COURSES OF BRICK (WHICH ARE ALSO SEEN FROM THE OPPOSITE SIDE), AND OVER THIS ARE ADOBE BRICKS SET IN A MUD MORTAR.

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October 2011Supervisor:  
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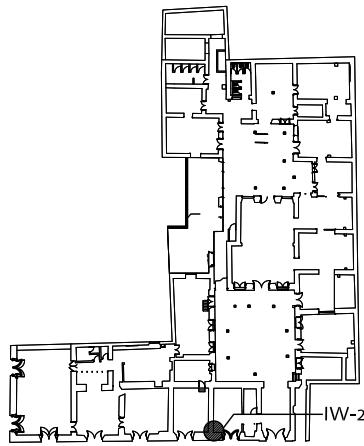
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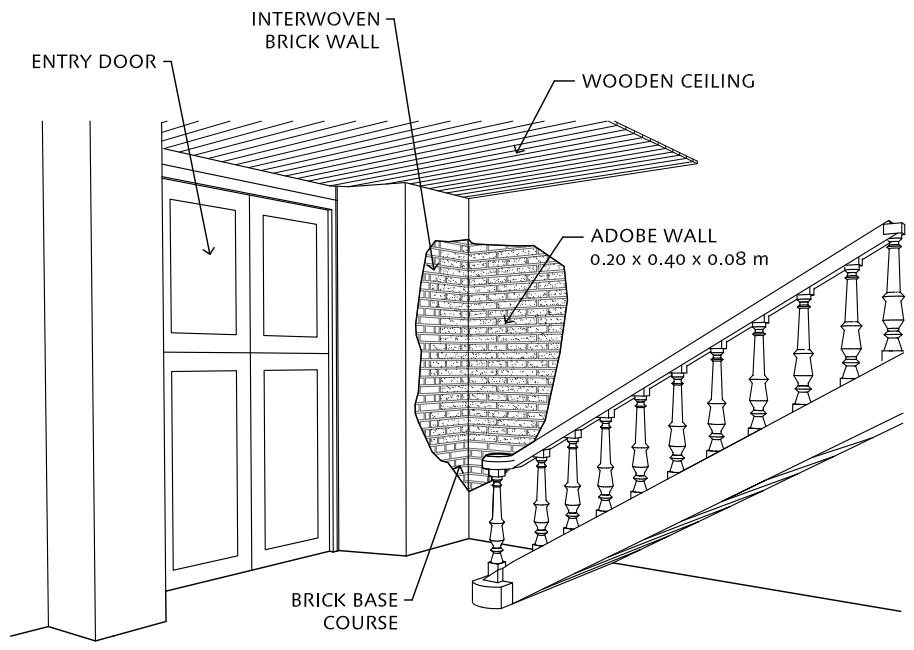
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IW- 1G

**HC-P-12**



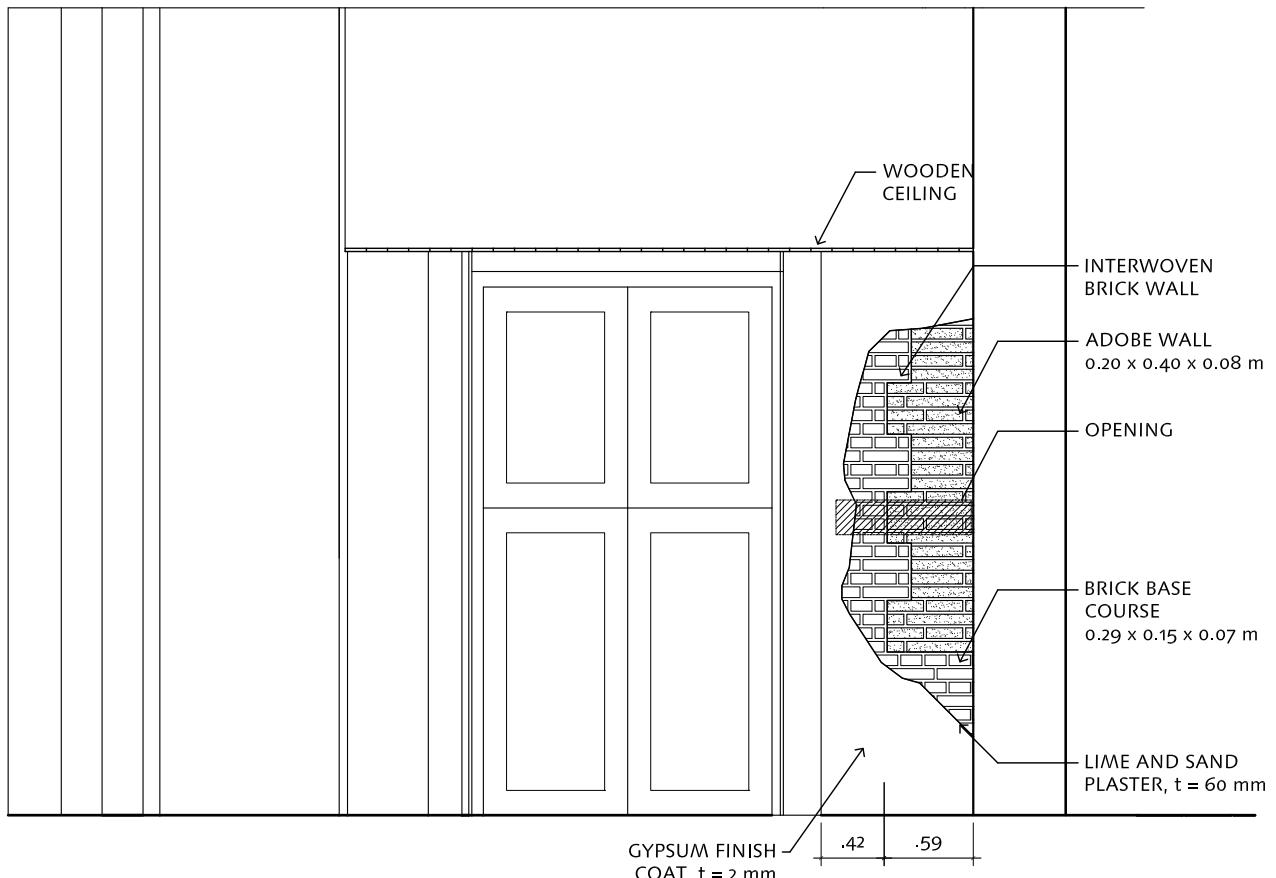
**FIRST FLOOR  
REFERENCE PLAN**

NO SCALE



**PERSPECTIVE**

NO SCALE



**SECTION IW-2**

SCALE 1:50

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Supervisor:  
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Structural Prospection  
IW-2

**HC-P-13**

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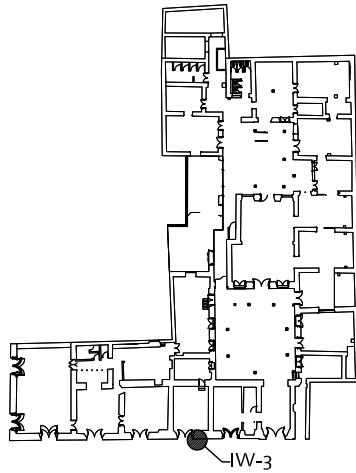


IW- 2

IW- 2

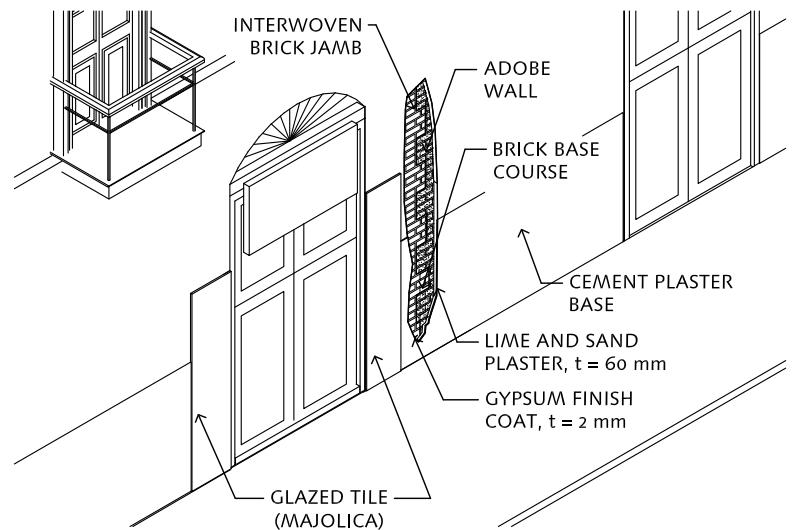
THIS DETAIL IS LOCATED IN THE ENTRY HALL (STAIR HALL 131) THAT PROVIDES ACCESS TO THE RESIDENCES, BETWEEN THE FAÇADE WALL AND THE PERPENDICULAR WALL THAT SEPARATES THE HALL FROM THE ADJACENT SHOP.

ONE CAN OBSERVE THAT THE CHAMFERED DOOR JAMB IS CONSTRUCTED WITH FIRED BRICK FOR THE FULL THICKNESS OF THE WALL. THIS BRICK MASONRY IS FOUND AROUND ALL OF THE OPENINGS ON THE FRONT FAÇADE, AND BETWEEN THE OPENINGS AND BRICK SURROUNDS THERE ARE MUD BRICK WALLS. THE FIRED BRICK IS INTERWOVEN WITH THE MUD BRICKS, WITH INDENTATIONS EVERY THREE TO FOUR COURSES. THE FAÇADE WALL ALSO HAS A BRICK BASE COURSE RISING TO A HEIGHT OF 0.70 - 0.80 m, AS MEASURED FROM THE FLOOR LEVEL IN THE HALL. THE MUD BRICK FAÇADE AND LATERAL WALLS ARE CONNECTED BY INTERWOVEN BRICKS.



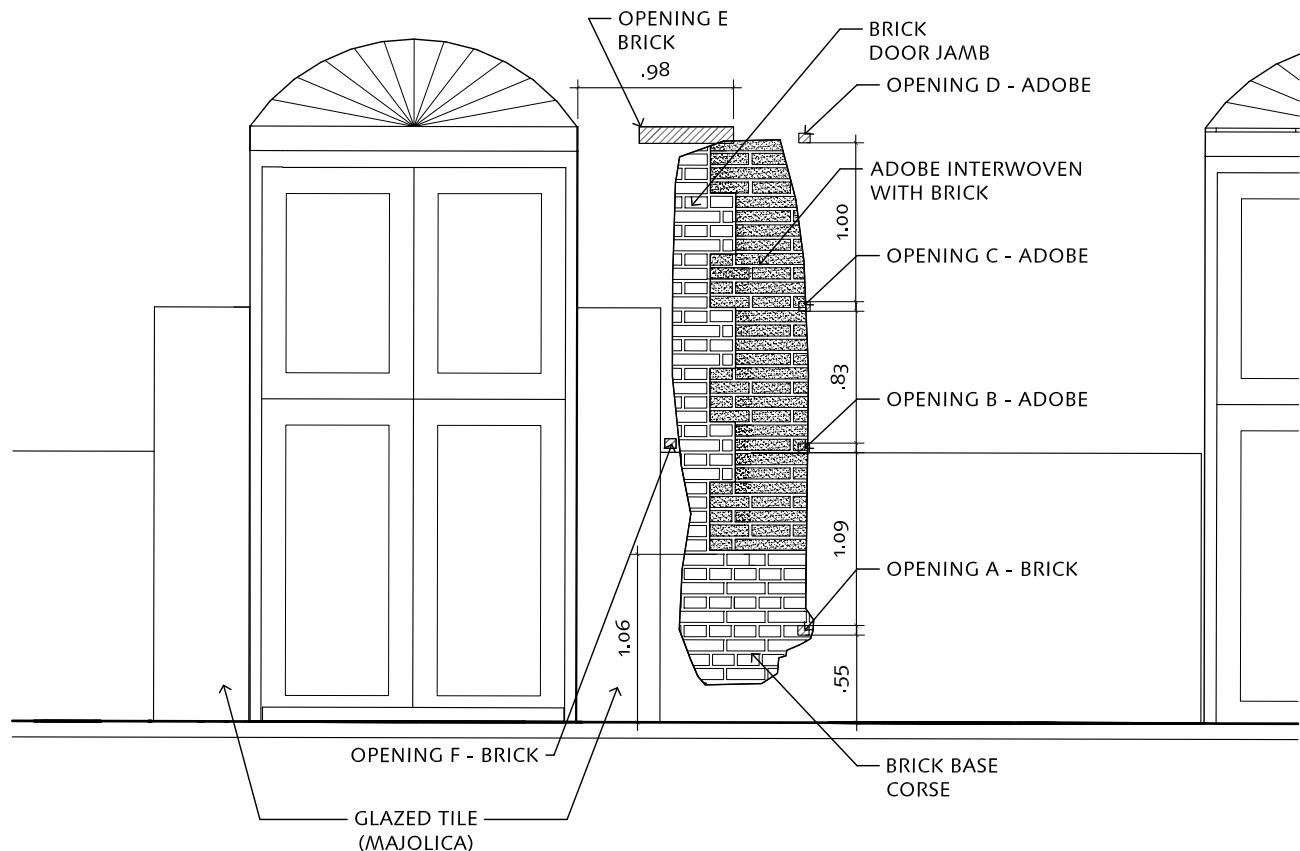
**FIRST FLOOR  
REFERENCE PLAN**

NO SCALE



**AXONOMETRIC**

NO SCALE



**ELEVATION IW-3**

NO SCALE

True scale when printed on 8-1/2" x 11" sheet.

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IW-3

HC-P-15

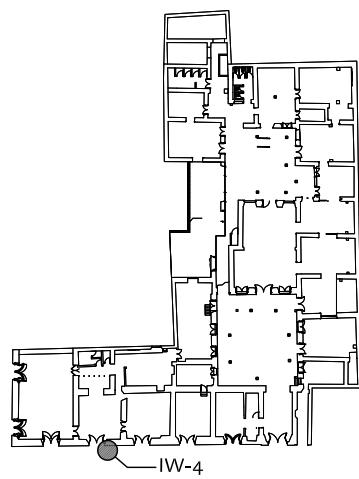


IW- 3

## IW-3

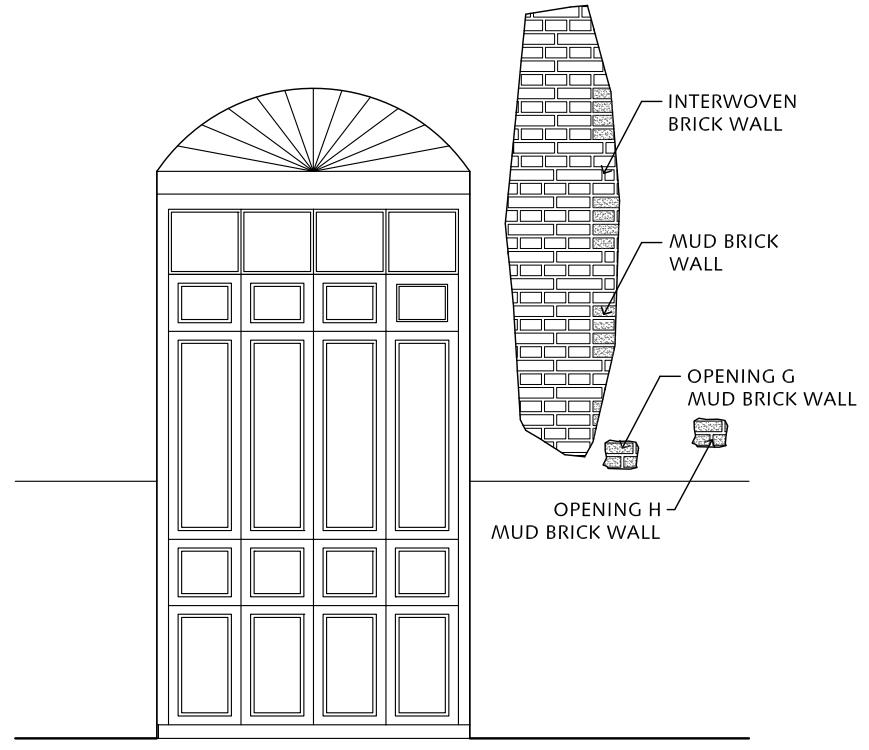
THESE OPENINGS ARE LOCATED ON THE FAÇADE WALL, NEXT TO THE ENTRANCE TO SHOE STORE. THE OPENINGS SHOW THAT THE BRICK BASE COURSE RISES TO A HEIGHT OF 1.00 m ABOVE THE SIDEWALK. BRICK MASONRY IS ALSO USED FOR THE SHOP ENTRY SURROUND. THE WIDTH OF THE FIRED BRICK JAMB IS 0.96 m, AND THE MASONRY CONSTRUCTION EXTENDS ACROSS THE FULL THICKNESS OF THE WALL. ABOVE THE FIRED BRICK BASE COURSE IS A MUD BRICK WALL CONSTRUCTION, EXTENDING TO THE UNDERSIDE OF THE SECOND FLOOR. THE MUD BRICKS ARE INTERWOVEN WITH THE FIRED BRICK SURROUNDS AT THE OPENINGS.

A THICK LIME AND SAND PLASTER INTEGRATES THE DIFFERENT MATERIALS.



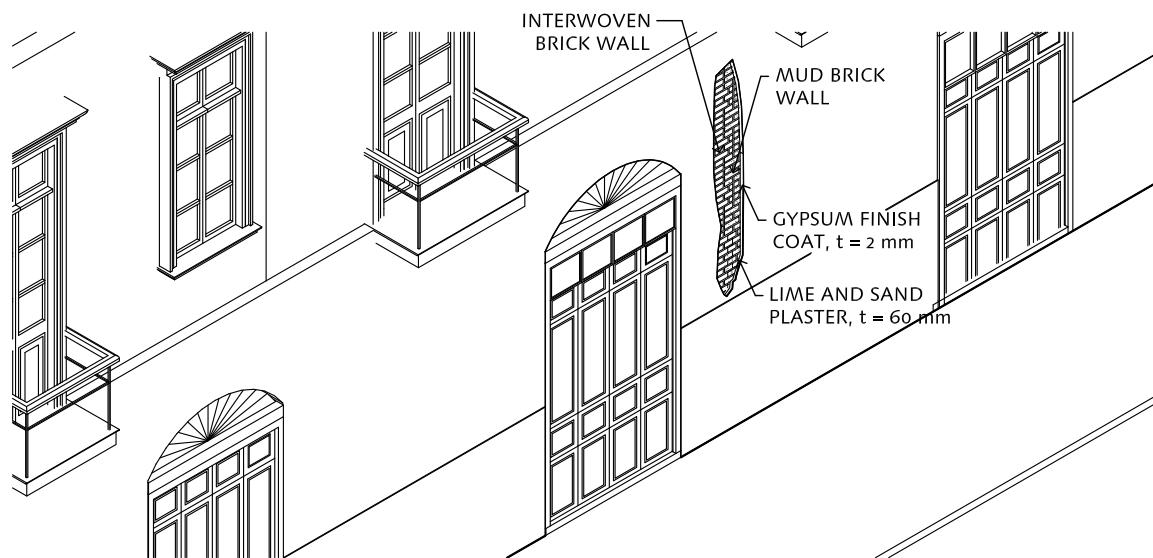
**FIRST FLOOR  
REFERENCE PLAN**

NO SCALE



**ELEVATION VIEW IW-4**

SCALE 1:50



**ISOMETRIC VIEW IW-4**

SCALE 1:100

True scale when printed on 8-1/2" x 11" sheet.

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Structural Prospection  
IW-4

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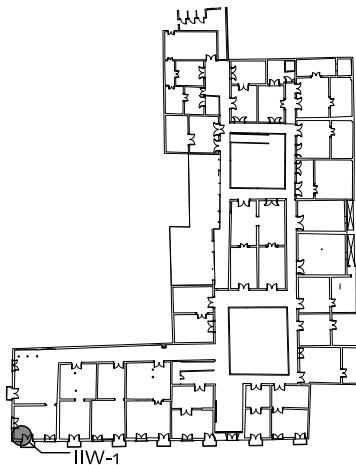


IW-4

IW-4

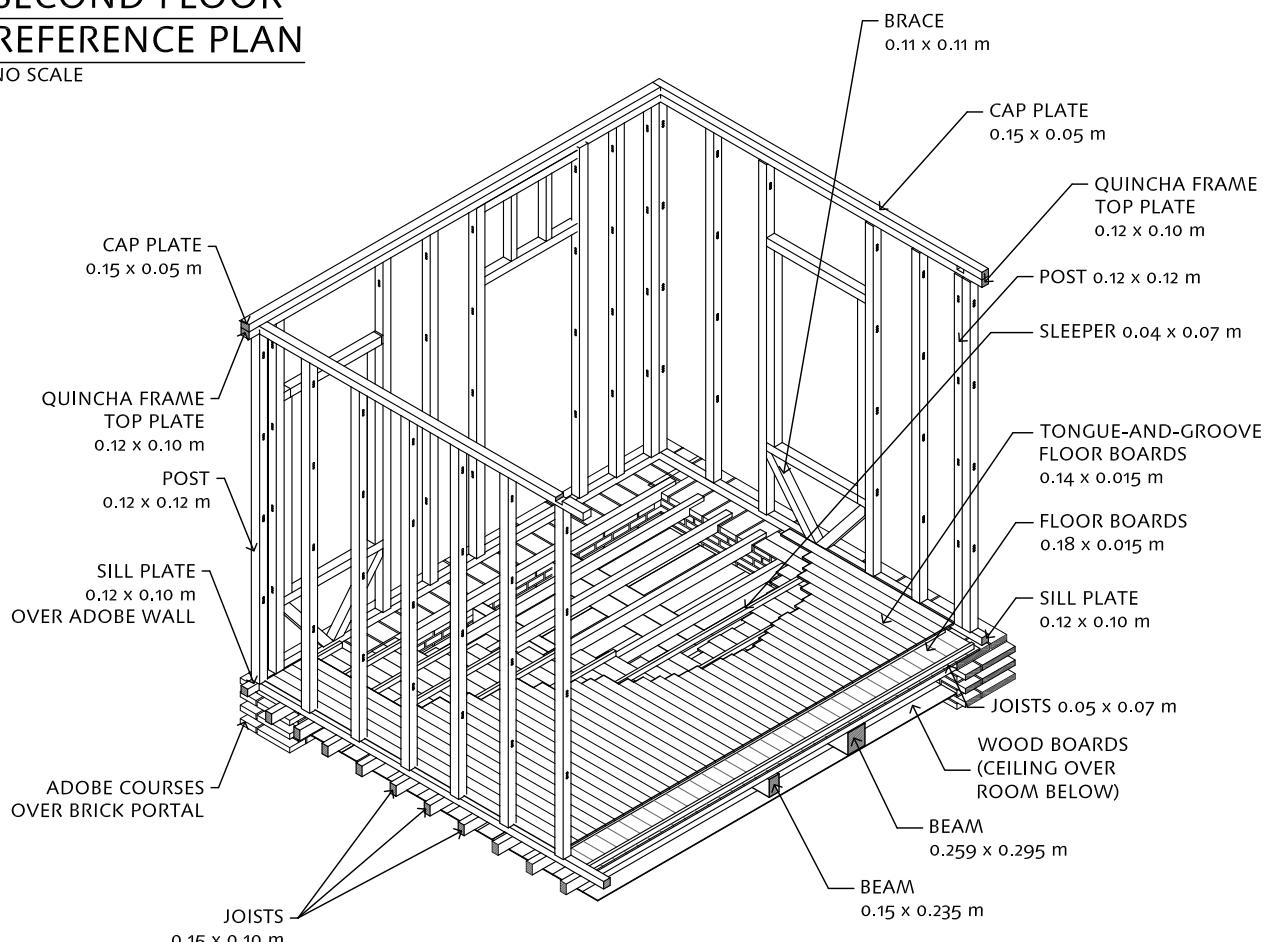
THE CONSTRUCTION OBSERVED THROUGH THIS PROSPECTION IS THE SAME AS THAT DESCRIBED FOR PROSPECTION IW-3.

True scale when printed on 8-1/2" x 11" sheet.



## SECOND FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC II-W1

NO SCALE

True scale when printed on 8-1/2" x 11" sheet.

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Structural Prospection  
IIW-1

Drafted By:  
Fernando Olmos

Date:  
October 2011

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IIW-1

## IIW-1

THIS OPENING IS LOCATED ON THE SECOND FLOOR, IN THE CORNER ROOM, ABOVE BAR CORDANO.

THE SECOND FLOOR CONSTRUCTION (FROM BOTTOM TO TOP) IS AS FOLLOWS:

A FALSE CEILING, CONSTRUCTED OF WOOD BOARDS, WHICH IS A FEATURE OF BAR CORDANO. THIS CEILING IS NAILED TO TWO LARGE WOOD BEAMS THAT SPAN THE DEPTH OF THE BAR. THE WOOD BEAMS MEASURE APPROXIMATELY  $0.26 \times 0.30$  m, AND ONE END OF THE BEAMS RESTS ON THE MUD BRICKS AT THE FRONT FAÇADE AND THE OTHER END IS SUPPORTED BY TRANSVERSE BEAMS. THE REMOVAL OF AN ADOBE WALL BETWEEN AREAS 127 AND 128 OF BAR CORDANO, FOR THE PURPOSES OF OPENING UP THE BAR'S FLOOR AREA, LED TO THE SOLUTION OF TRANSVERSE BEAMS SUPPORTING BEAMS. FLOOR JOISTS SIT ON TOP OF THE TWO BEAMS; AND THESE JOISTS RUN PERPENDICULARLY TO THE BEAMS. THE JOIST ENDS REST ON ADOBE WALLS: THE LATERAL FAÇADE WALL AND THE PARALLEL WALL. THE SPACE BETWEEN THE JOIST ENDS IS FILLED WITH MUD BRICKS. OVER THE JOISTS IS WOOD DECKING, AND WOOD SLEEPERS SIT ON TOP OF THE DECKING. THE SPACE BETWEEN THE SLEEPERS IS FILLED WITH A MORTAR OF EARTH AND LIME. ANOTHER LAYER OF WOOD DECKING, WHICH FORMS THE FINISH FLOOR OF THE ROOM, IS NAILED TO THE SLEEPERS.

BY EXTENDING THE OPENING TO THE QUINCHA WALL CONSTRUCTION, THE FOLLOWING STRUCTURE WAS OBSERVED:

AT THE TOP OF THE ADOBE WALL, THERE IS A  $0.12 \times 0.10$  m SILL PLATE, WHICH SERVES AS THE BASE OF THE QUINCHA FRAME. ABOVE THIS ARE WOOD POSTS, CONNECTED WITH MORTISE-AND-TENON JOINTS. THE BOTTOM PART OF THE QUINCHA FRAME IS FILLED ("CITARA") WITH DIAGONAL WOOD BRACES, WITH MUD BRICKS IN THE SPACES BETWEEN THE DIAGONALS. AT THE TOP OF THE BRICKS, THERE IS NOT A HORIZONTAL WOOD PLATE TO RECEIVE THE ENDS OF THE VERTICAL CANES ABOVE. SUCH A PLATE ONLY OCCURS AT THE WINDOW SILLS.

THE VERTICAL CANES (A TYPE OF CANE WITH A FILLED CENTER, CALLED "CAÑA BRAVA") EXTEND THE FULL HEIGHT OF THE WALL FRAME AND ARE WOVEN THROUGH THREE HORIZONTAL CANES. THESE HORIZONTAL CANES PASS THROUGH HOLES IN THE WOOD POSTS. AT THE TOP OF THE FRAME, THERE ARE FOUR HORIZONTALS OF THIS TYPE.

AT THE HIGHEST PART OF THE FRAME THERE IS A WOOD BEAM, CALLED A "CARRERA" OR TOP PLATE. THE TOP OF THE WOOD POSTS ARE CONNECTED TO THIS TOP PLATE WITH MORTISE-AND-TENON JOINTS. ABOVE THE TOP PLATE IS ANOTHER PLATE, CALLED THE "VIGA DE AMARRE" OR CAP PLATE.

AT THE CORNERS, WHERE THE FAÇADE WALL AND PERPENDICULAR WALL SEPARATING THE ROOMS CONVERGE, THE TOP PLATES OF THE TWO FRAMES ARE CONNECTED WITH HALF-LAP JOINTS.

**SEISMIC RETROFITTING PROJECT**

The Earthen Architecture Initiative



Building:

**HOTEL COMERCIO**  
 Lima, Perú

 Drafted By:  
 Fernando Olmos

 Date:  
 October 2011

 Supervisor:  
 Arch. Mirna Soto

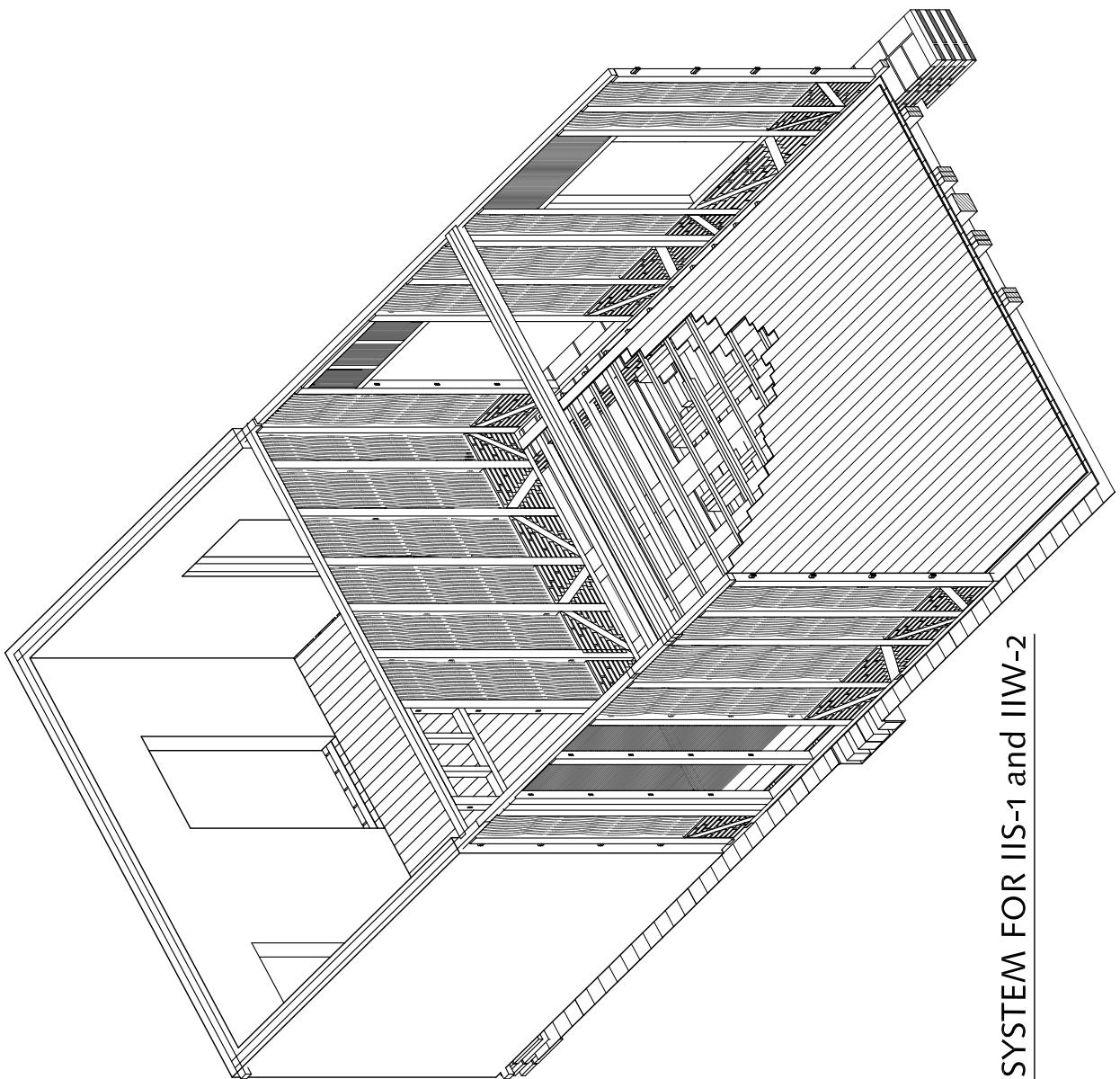
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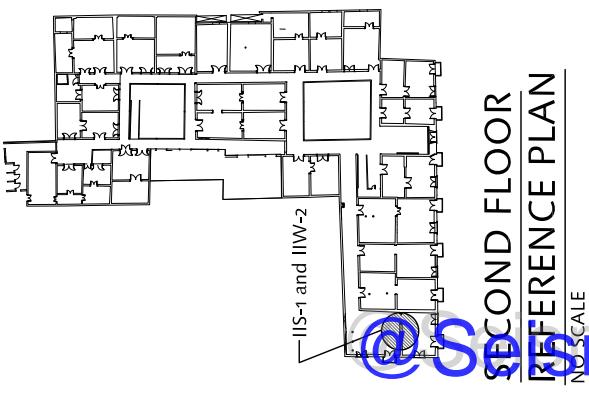
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 Jabdil Zapata

HC-P-20



**AXONOMETRIC ILLUSTRATING BEAM SYSTEM FOR IIS-1 and IIW-2**

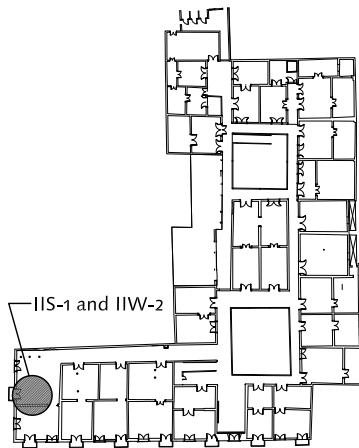
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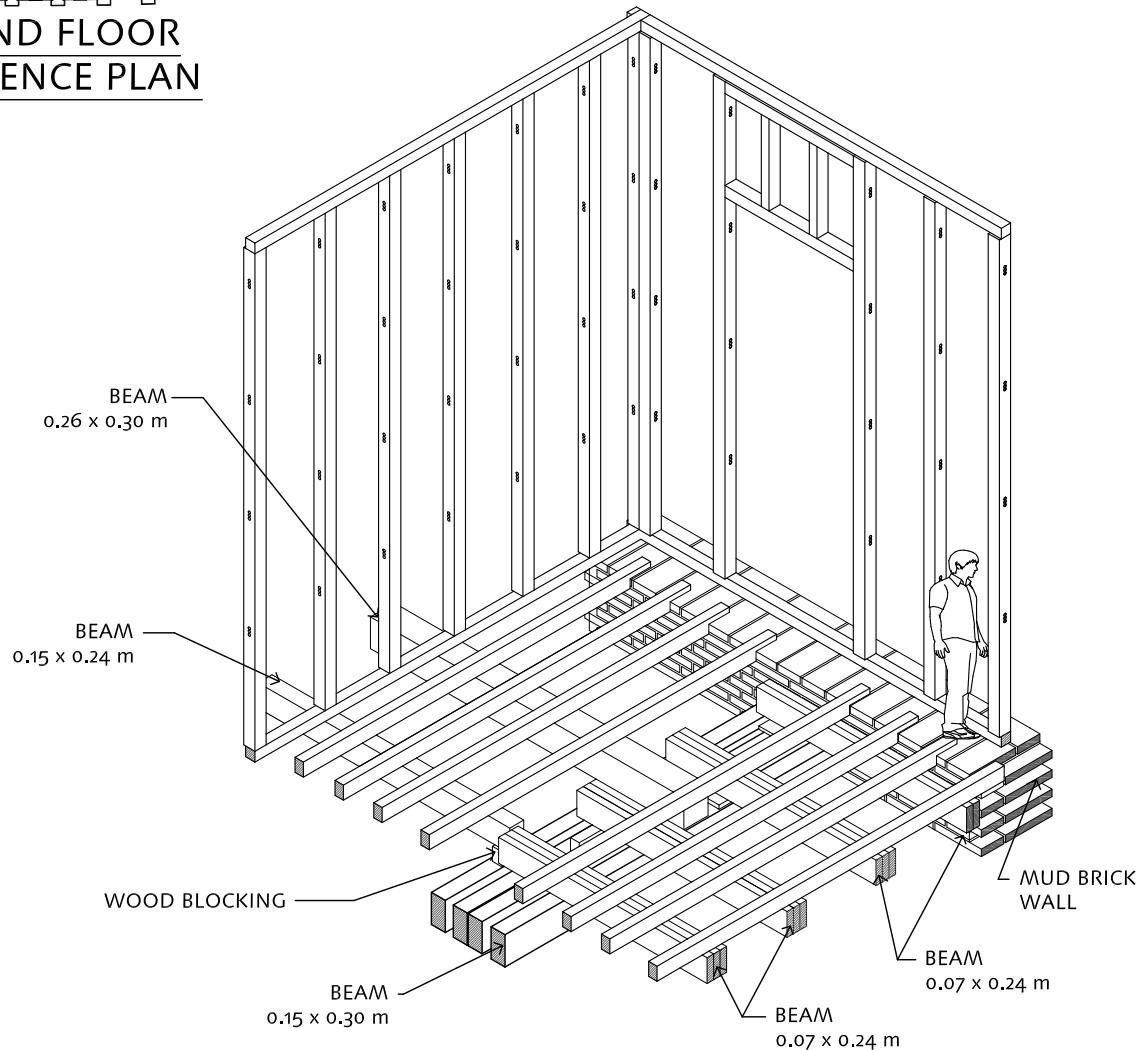
<b>SEISMIC RETROFITTING PROJECT</b> The Earthen Architecture Initiative	Building:	HOTEL COMERCIO Lima, Perú
	Sheet Title:	Structural Prospections IIS-1 and IIW-1
	Drafted By:	Fernando Olmos
	Supervisor:	Arch. Mina Soto
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	Date:	October 2011
	Scale:	As noted
	Sheet No.:	<b>HC-P-21</b>





**SECOND FLOOR  
REFERENCE PLAN**

NO SCALE



**ISOMETRIC ILLUSTRATING BEAM SYSTEM FOR IIS-1 and IIW-2**

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The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

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Sheet Title: Structural Prospections  
IIS-1 and IIW-2

**HC-P-22**



IIS-1 and IIW-2

## IIS-1 and IIW-2

THESE TWO PROSPECTIONS ARE LOCATED IN THE SAME ROOM. THEY ALLOW US TO OBSERVE THE IMPORTANT LOCATION WHERE THE VARIOUS FLOOR BEAMS MEET.

THE SECOND FLOOR STRUCTURE IS AS FOLLOWS:

FROM BAR CORDANO, ON THE FIRST FLOOR BELOW, ONE CAN SEE A FINISHED CEILING MADE OF WOOD BOARDS, WHICH ALSO INCLUDES A GIRDER RUNNING THROUGH THE CENTER OF THE BAR AREA. THIS "GIRDER" IS ACTUALLY CONSTRUCTED OF FOUR BEAMS THAT HAVE BEEN CLAD WITH WOOD BOARDS TO GIVE THE APPEARANCE OF BEING ONE. THE ENDS OF THIS GIRDER ARE EMBEDDED IN THE LATERAL FAÇADE WALL AT ONE SIDE AND, AT THE OTHER SIDE, THE INTERIOR ADOBE WALL SEPARATING THE MAIN BAR AREA FROM THE PRIVATE DINING ROOMS. THIS GIRDER TOOK THE PLACE OF AN EARLIER MUD BRICK WALL THAT WAS REMOVED, WITH THE POSSIBLE PURPOSE OF JOINING TWO SMALL SHOPS / ROOMS TO CREATE ONE LARGER ROOM.

ONE CAN SEE THAT THIS GIRDER SUPPORTS OTHER MAJOR BEAMS THAT RUN LONGITUDINAL TO THE ROOM. SOME OF THESE BEAMS ARE MADE OF REUSED MATERIAL FROM THE BUILDING - THREE WOOD JOISTS GROUPED TOGETHER TO FORM ONE BEAM, WITH WOOD BLOCKING TO LEVEL THEM. IT APPEARS THAT THESE CHANGES WERE MADE NOT THAT LONG AGO. OVER THESE JOISTS / BEAMS IS WOOD DECKING.

AS THE SECOND FLOOR ROOMS ARE SMALLER THAN THOSE ON THE FIRST FLOOR, THE WOOD-FRAMED QUINCHA WALL AT THE SECOND FLOOR DOES NOT ALIGN WITH A WALL BELOW. AS A RESULT, ONLY THE WOOD DECKING SUPPORTS THE SILL PLATE AT THE BOTTOM OF THE WALL FRAME. THIS SILL PLATE IS CONNECTED TO THE FRAME POSTS THROUGH MORTISE-AND-TENON JOINTS. ONE CAN OBSERVE A DEPRESSION IN THE DECKING, AND THUS AN UNEVENNESS IN THE FLOOR LEVEL OF THIS ROOM. OVER THE DECKING, THERE ARE WOOD SLEEPERS SPACED AT 0.40 m, AND THE SPACE BETWEEN THESE SLEEPERS IS FILLED WITH A MORTAR OF EARTH AND LIME. ANOTHER LAYER OF WOOD DECKING, WHICH FORMS THE FINISH FLOOR OF THE ROOM, IS NAILED TO THE SLEEPERS. THE UNEVEN FLOOR LEVEL, CAUSED BY THE INABILITY OF THE DECKING TO SUPPORT THE WEIGHT OF THE QUINCHA WALL, HAS BEEN PARTIALLY CORRECTED THROUGH WOOD BLOCKING, WHICH RETURNED THE SLEEPERS TO LEVEL AND ALLOWED THE DECKING TO BE LEVEL AGAIN.

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### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



The Getty Conservation Institute



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:

Olmos

Date:

October 2011

Supervisor:

Arch. Mirna Soto

Scale:

As noted

Sheet Title:

Structural Prospections  
IIS-1 and IIW-2

Facilitator:

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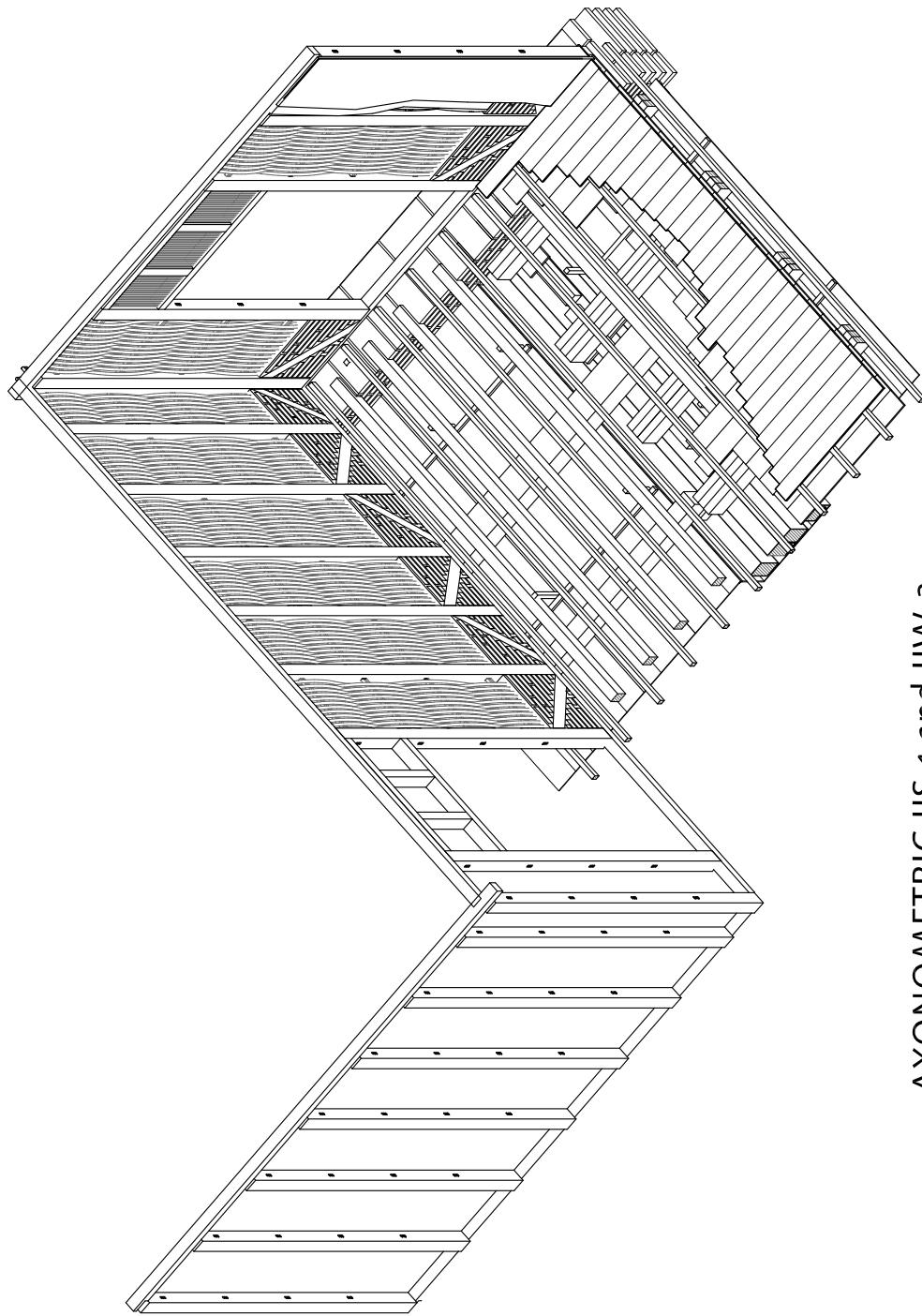
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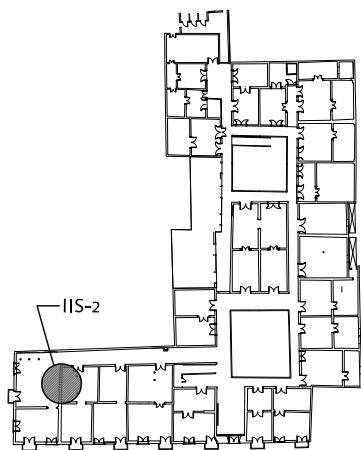


**AXONOMETRIC IIS-1 and IIW-2**  
NO SCALE



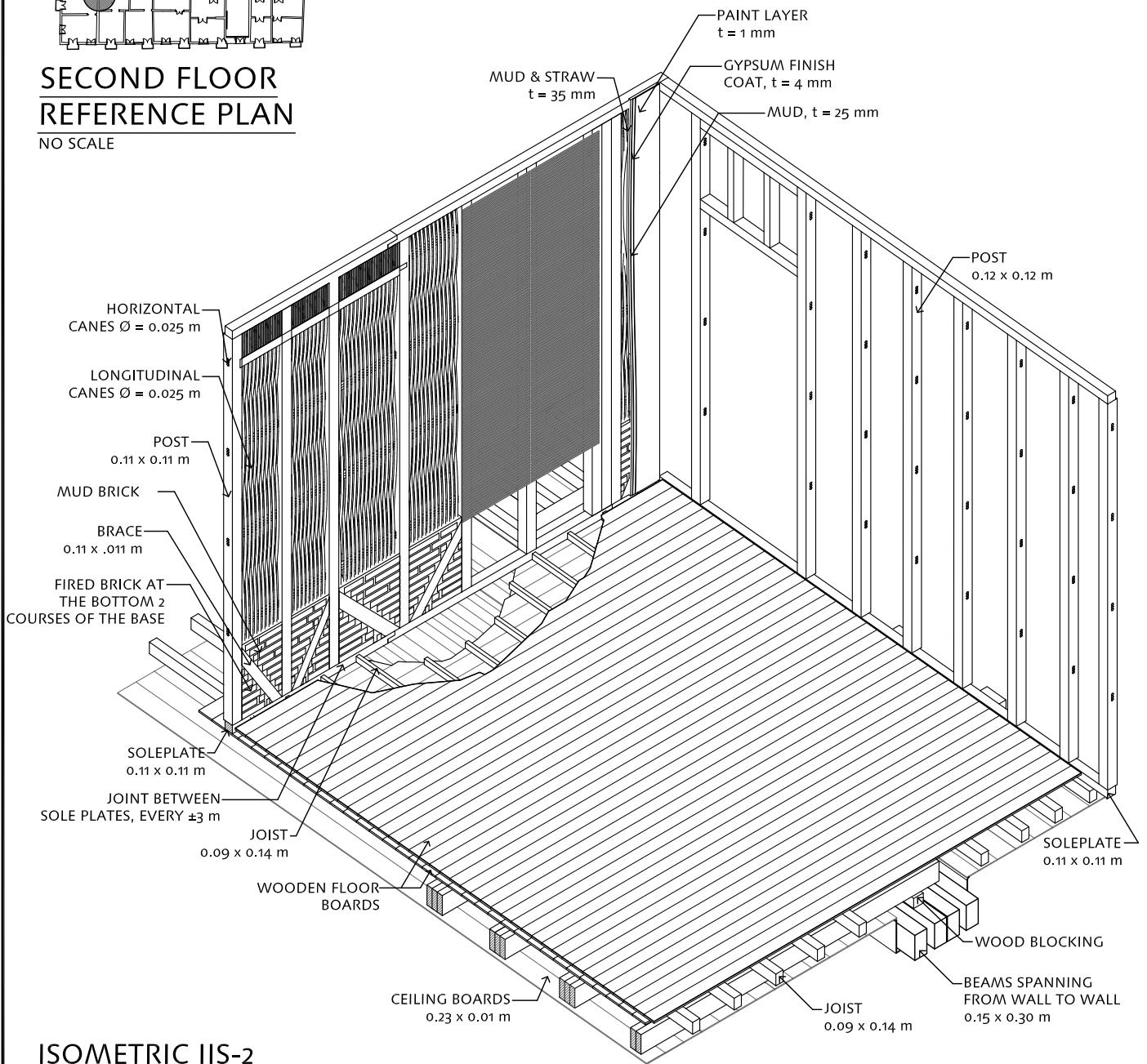
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	Supervisor: Arch. Mina Soto	Scale: As noted	Sheet No.: <b>HC-P-24</b>
	Facilitator: Universidad Católica Sedes Sapientiae		
	Edited and Translated By: Jabdiel Zapata		
Sheet Title: <b>Structural Prospections IIS-1 and IIW-2</b>			



## SECOND FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC IIS-2

NO SCALE

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The Earthen Architecture Initiative



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Date:  
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Scale:  
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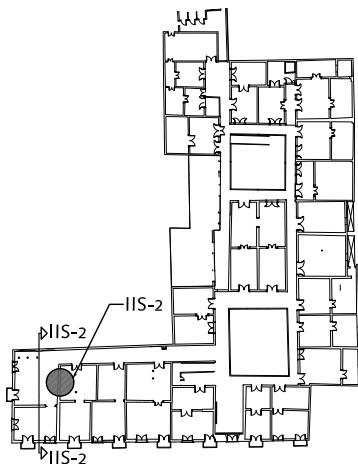
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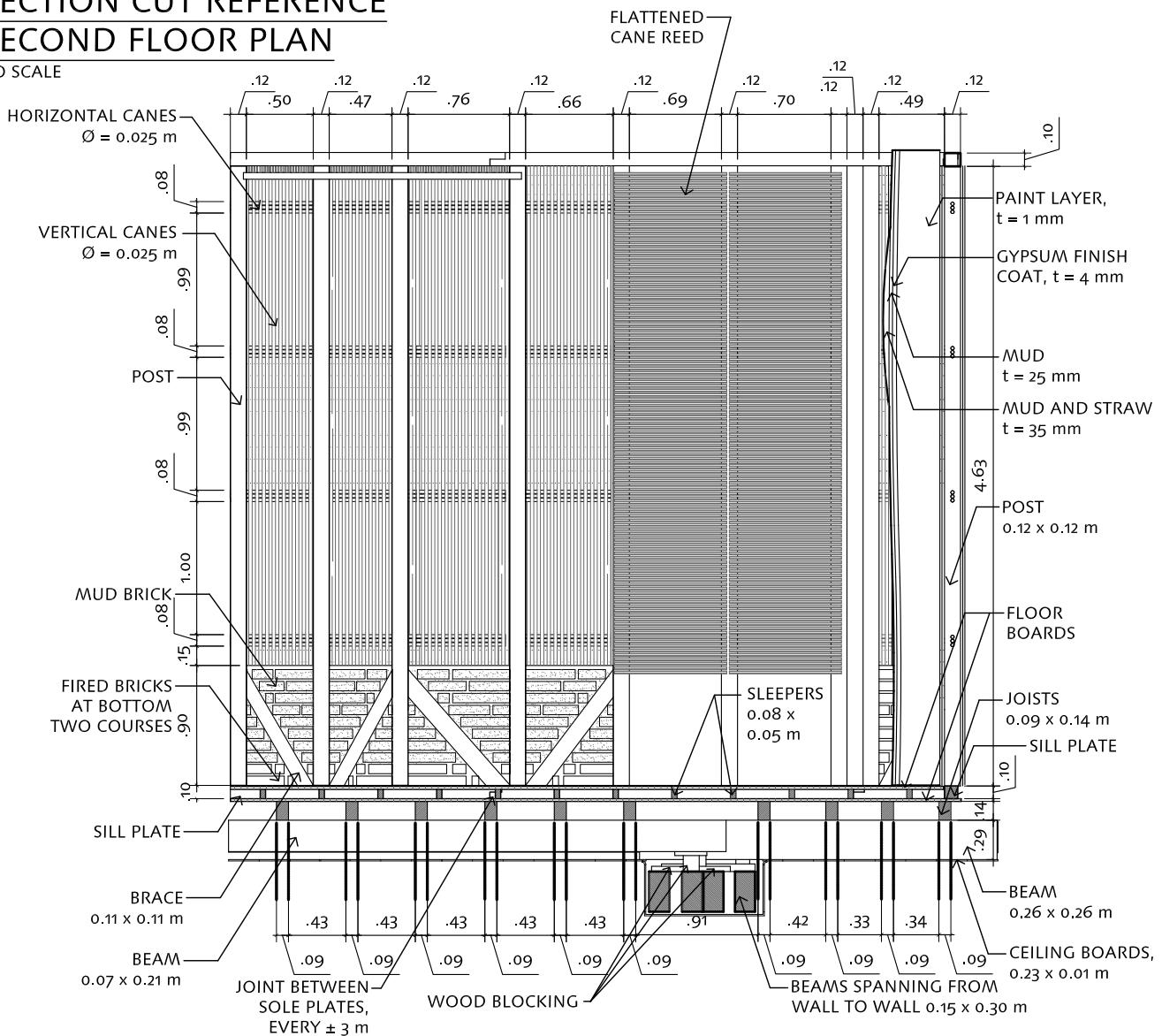
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IIS-2

HC-P-25



## SECTION CUT REFERENCE SECOND FLOOR PLAN

NO SCALE



## ELEVATION / SECTION IIS-2

SCALE 1:50

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IIS-2Drafted By:  
Fernando OlmosDate:  
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HC-P-26

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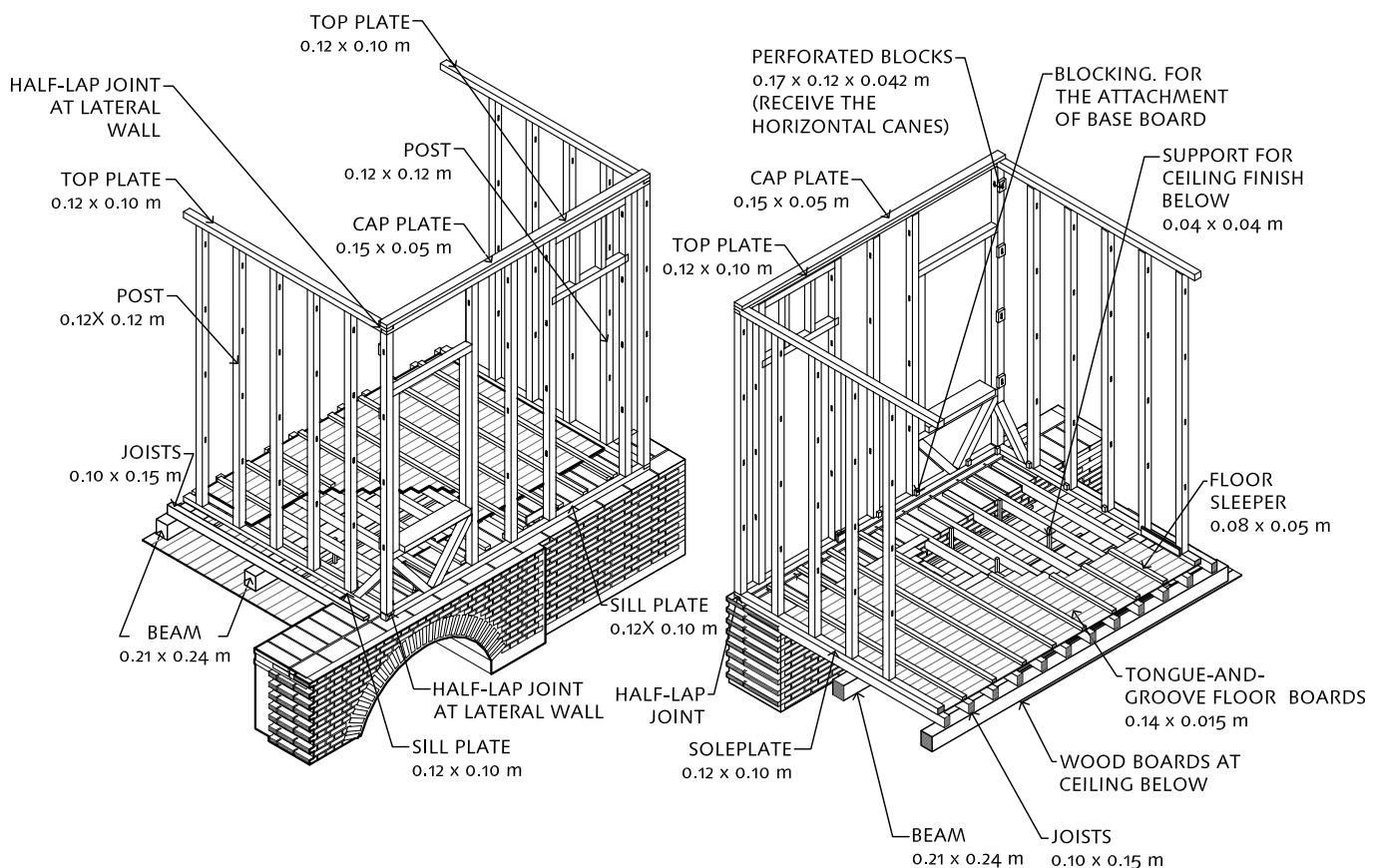
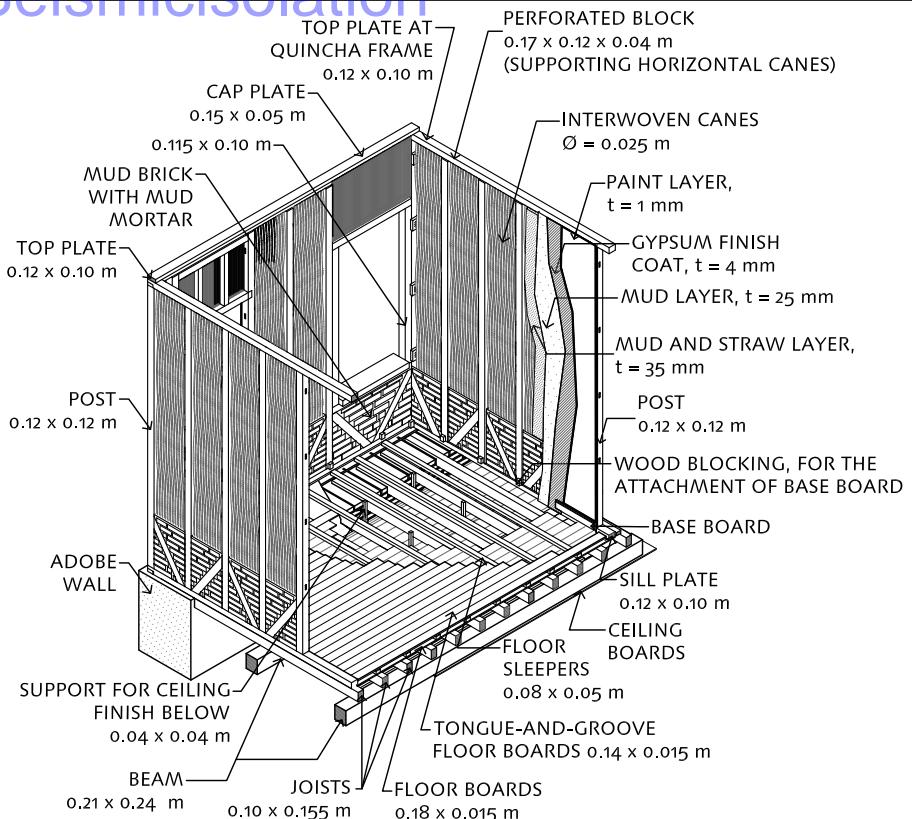
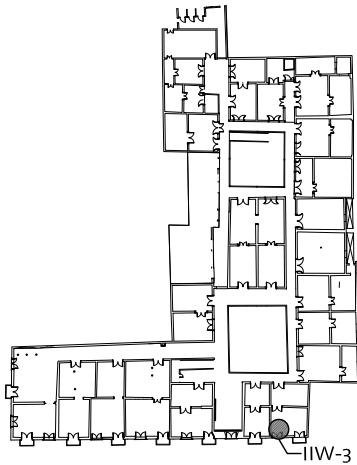


IIS-2

## IIS-2

THIS OPENING IS LOCATED IN A ROOM ABOVE BAR CORDANO.

ONE CAN OBSERVE THE INTERIOR QUINCHA WALL THAT SEPARATES TWO ROOMS. THE STRUCTURE IS ALMOST IDENTICAL TO THAT OBSERVED THROUGH PROSPECTION IIW-1. THE ONLY DIFFERENCE IS THAT THIS QUINCHA WALL IS SUPPORTED BY A CORRESPONDING WALL ON THE FIRST FLOOR, THE WALL FRAME SITS ON JOISTS THAT ARE SUPPORTED BY BEAMS. THESE BEAMS ARE SUPPORTED BY OTHER BEAMS THAT WERE INSTALLED TO TAKE THE PLACE OF A WALL THAT WAS REMOVED IN THE BAR CORDANO SPACE AT THE FIRST FLOOR.



ISOMETRICS IIW-3

SCALE 1:125

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Arch. Mirna SotoScale:  
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IIW-3Facilitator:  
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IIW-3

## IIW-3

THIS OPENING IS LOCATED INSIDE THE RESIDENCES ON THE SECOND FLOOR, ABOVE THE ENTRY HALL. ONE CAN OBSERVE THE FLOOR STRUCTURE AND CONNECTION OF THE QUINCHA WALL FRAMES.

THE FLOOR STRUCTURE (FROM BOTTOM TO TOP) IS AS FOLLOWS:

AT THE BOTTOM THERE IS A WOOD PANEL CEILING, WHICH CAN BE VIEWED FROM THE ENTRY HALL BELOW. THIS IS FASTENED TO WOOD BATTENS AT THE PERIMETER, WHICH ARE NAILED TO THE WALLS, AND ALSO TO WOOD TIE BEAMS HANGING FROM THE JOISTS.

ABOVE THIS ARE LARGE WOOD BEAMS, MEASURING  $0.21 \times 0.235$  m AND SPACED AT APPROXIMATELY 1.50 m. THESE BEAM ENDS ARE EMBEDDED IN THE ADOBE WALLS.

OVER THESE BEAMS ARE THE JOISTS, WHICH RUN IN THE PERPENDICULAR DIRECTION. THE JOIST ENDS SIT DIRECTLY ON TOP OF THE ADOBE WALL AT THE FAÇADE. THE SPACE BETWEEN THE JOISTS IN THIS AREA IS FILLED WITH MUD BRICKS. OVER THE JOISTS IS WOOD DECKING, AND OVER THE DECKING ARE WOOD SLEEPERS. THE SPACE BETWEEN THE SLEEPERS IS FILLED WITH A MORTAR OF EARTH AND LIME. ANOTHER LAYER OF WOOD DECKING, WHICH FORMS THE FINISH FLOOR OF THE ROOM, IS NAILED TO THE SLEEPERS.

BY EXTENDING THE OPENING TO THE QUINCHA WALL CONSTRUCTION, THE FOLLOWING STRUCTURE WAS OBSERVED:

AT THE TOP OF THE ADOBE WALL, THERE IS A  $0.12 \times 0.10$  m SILL PLATE, WHICH SERVES AS THE BASE OF THE QUINCHA FRAME. ABOVE THIS ARE WOOD POSTS, CONNECTED WITH MORTISE-AND-TENON JOINTS. THE BOTTOM PART OF THE QUINCHA FRAME IS FILLED ("CITARA") WITH DIAGONAL WOOD BRACES, WITH MUD BRICKS IN THE SPACES BETWEEN THE DIAGONALS. AT THE TOP OF THE BRICKS, THERE IS NOT A HORIZONTAL WOOD PLATE TO RECEIVE THE ENDS OF THE VERTICAL CANES ABOVE.

THE VERTICAL CANES (A TYPE OF CANE WITH A FILLED CENTER, CALLED "CAÑA BRAVA") EXTEND THE FULL HEIGHT OF THE WALL FRAME AND ARE WOVEN THROUGH THREE HORIZONTAL CANES. THESE HORIZONTAL CANES PASS THROUGH HOLES IN THE WOOD POSTS. AT THE TOP OF THE FRAME, THERE ARE FOUR HORIZONTALS OF THIS TYPE.

AT THE HIGHEST PART OF THE PANEL THERE IS A WOOD BEAM, CALLED A "CARRERA" OR TOP PLATE. THE TOP OF THE WOOD POSTS ARE CONNECTED TO THIS TOP PLATE WITH MORTISE-AND-TENON JOINTS. ABOVE THE TOP PLATE IS ANOTHER PLATE, CALLED THE "VIGA DE AMARRE" OR CAP PLATE.

AT THE CORNERS, WHERE THE FAÇADE WALL AND PERPENDICULAR WALL SEPARATING THE ROOMS CONVERGE, THE TOP PLATES OF THE TWO FRAMES ARE CONNECTED WITH HALF-LAP JOINTS.

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The Earthen Architecture Initiative



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Fernando OlmosDate:  
October 2011Supervisor:  
Arch. Mirna SotoScale:  
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Facilitator:

Universidad Católica Sedes Sapientiae

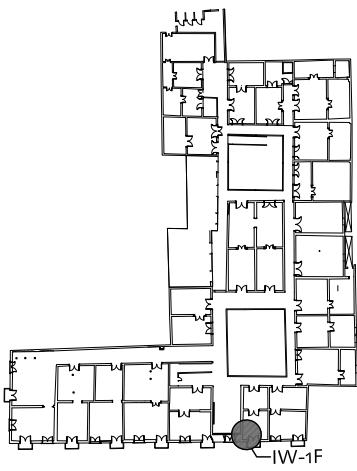
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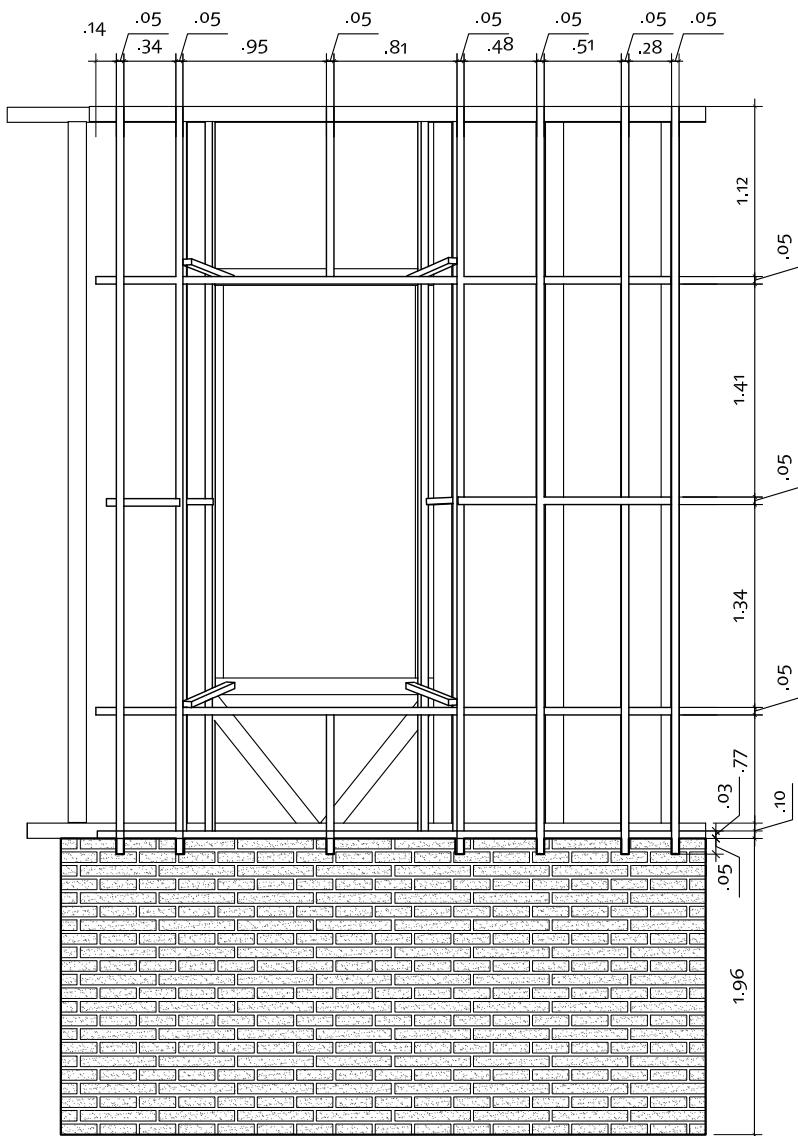
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Structural Prospections  
IIW-3

HC-P-29



**SECOND FLOOR  
REFERENCE PLAN**

NO SCALE



**INTERIOR VIEW OF SECTION IW-1F**

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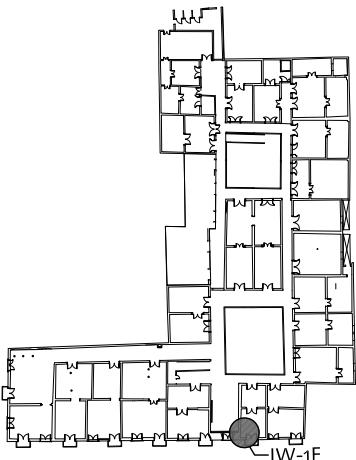
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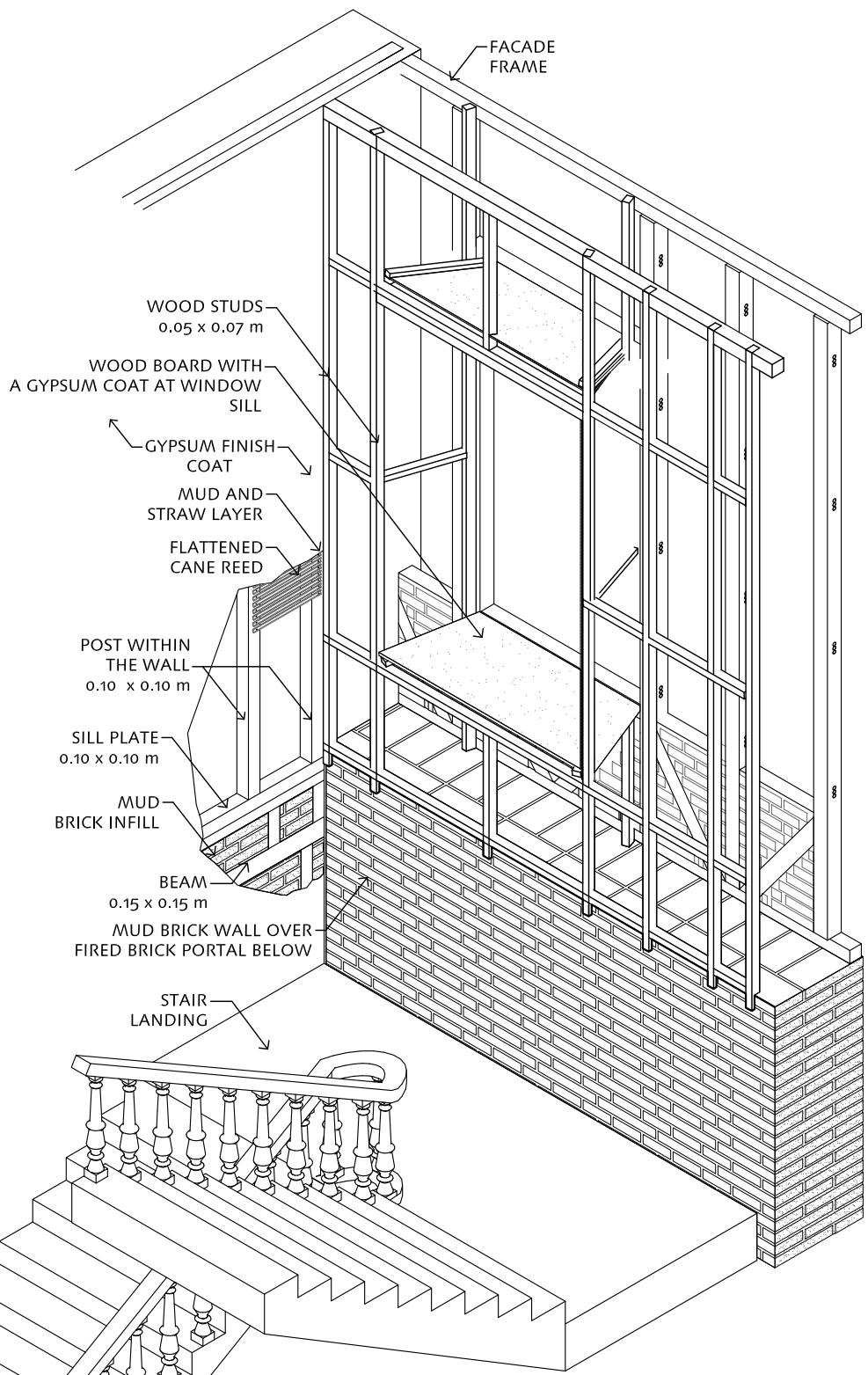
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IW-1F

**HC-P-30**



**SECOND FLOOR  
REFERENCE PLAN**

NO SCALE



**ISOMETRIC IW-1F**

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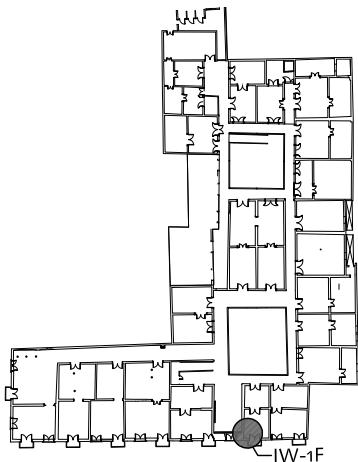
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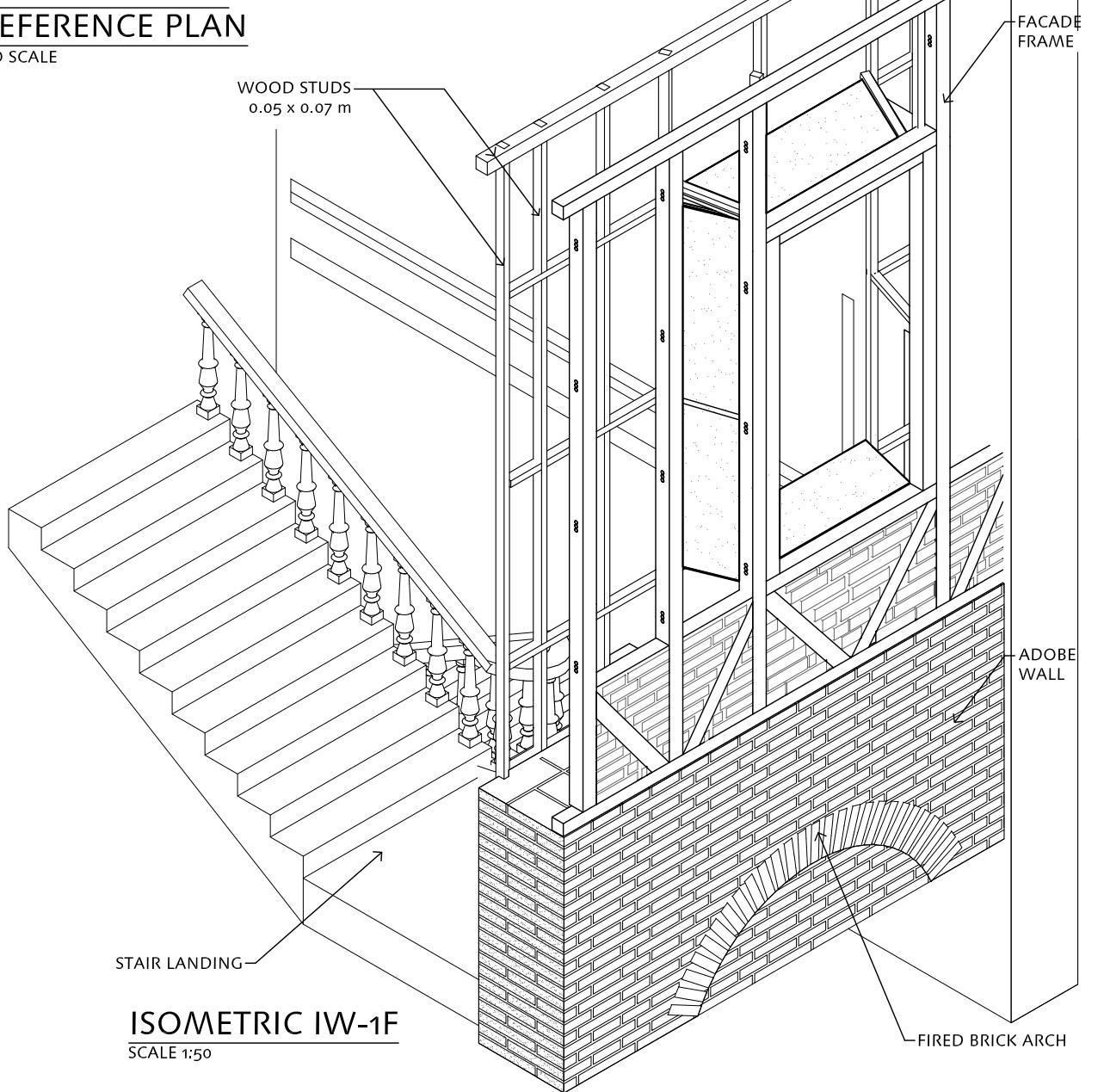
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**HC-P-31**



## SECOND FLOOR REFERENCE PLAN

NO SCALE



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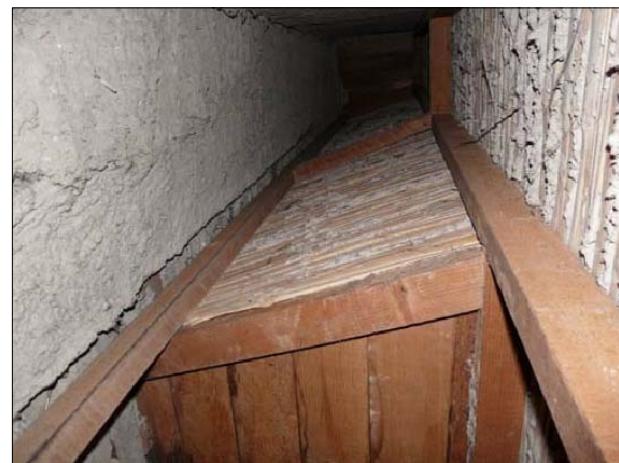
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IW-1F

IW-1F

THIS OPENING IS LOCATED AT THE STAIR LANDING (BETWEEN THE FIRST AND SECOND FLOORS), AT THE CORNER OF THE FRONT FAÇADE WALL AND THE PERPENDICULAR WALL THAT SEPARATES THE STAIRS FROM THE ADJACENT ROOM.

ONE CAN OBSERVE THE TOP OF THE ADOBE WALL AT THE FIRST FLOOR. OVER IT IS A STRUCTURE OF VERTICAL POSTS AND HORIZONTALS THAT FORM A DOUBLE QUINCHA WALL, HAVING THE SAME OVERALL THICKNESS AS THE ADOBE WALL BELOW (APPROXIMATELY 1.00 m), WITH A LARGE EMPTY SPACE, OR CAVITY, BETWEEN THE TWO QUINCHA WALL FRAMES. THE OUTERMOST QUINCHA FRAME, ALONG THE STREET, IS FILLED ("CITARA") WITH A BRACING SYSTEM AT THE BASE OF THE WALL. THIS BRACING SYSTEM CONSISTS OF WOOD DIAGONALS NAILED TO THE POSTS AND MUD BRICKS IN THE SPACES BETWEEN THE DIAGONALS. IT IS IMPORTANT TO NOTE THAT ALL SECOND FLOOR WALLS HAVE THIS FILL AT THE BOTTOM OF THE FRAMES - IT SERVES AS A TRANSITIONAL ELEMENT BETWEEN THE ADOBE WALL BELOW AND THE TYPICAL QUINCHA WALL ABOVE. THIS OPENING ALSO SHOWS THE CONSTRUCTION OF THE WINDOW OPENING IN THE STREET-FACING DOUBLE QUINCHA WALL. IT HAS A CHAMFERED HEAD AND JAMBS, WHICH ARE FORMED WITH WOOD STUDS AND BEAMS, COVERED WITH FLATTENED CANE REEDS THAT ARE ATTACHED WITH STRAPS (LEATHER OR COWHIDE).

AT THE WALL THAT RUNS PERPENDICULAR TO THE FAÇADE, ONCE CAN OBSERVE THE SAME TOP OF THE ADOBE WALL, AND ABOVE IT ARE THE ENDS OF THE FLOOR JOISTS FROM THE ADJACENT ROOM. ABOVE THIS IS THE QUINCHA WALL PARTITION. IN THIS SITUATION, THE FLATTENED CANE REEDS ARE NAILED DIRECTLY TO THE WOOD POSTS. BOTH THE QUINCHA AND ADOBE WALLS ARE COVERED WITH A THICK MUD PLASTER AND A GYPSUM FINISH COAT.

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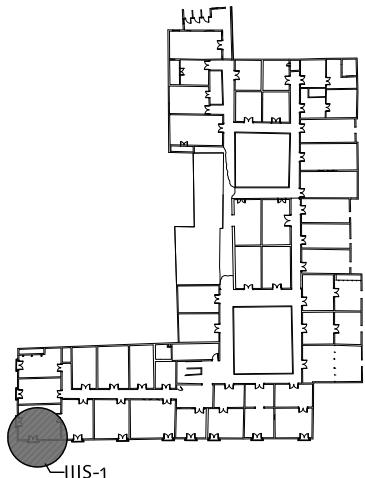
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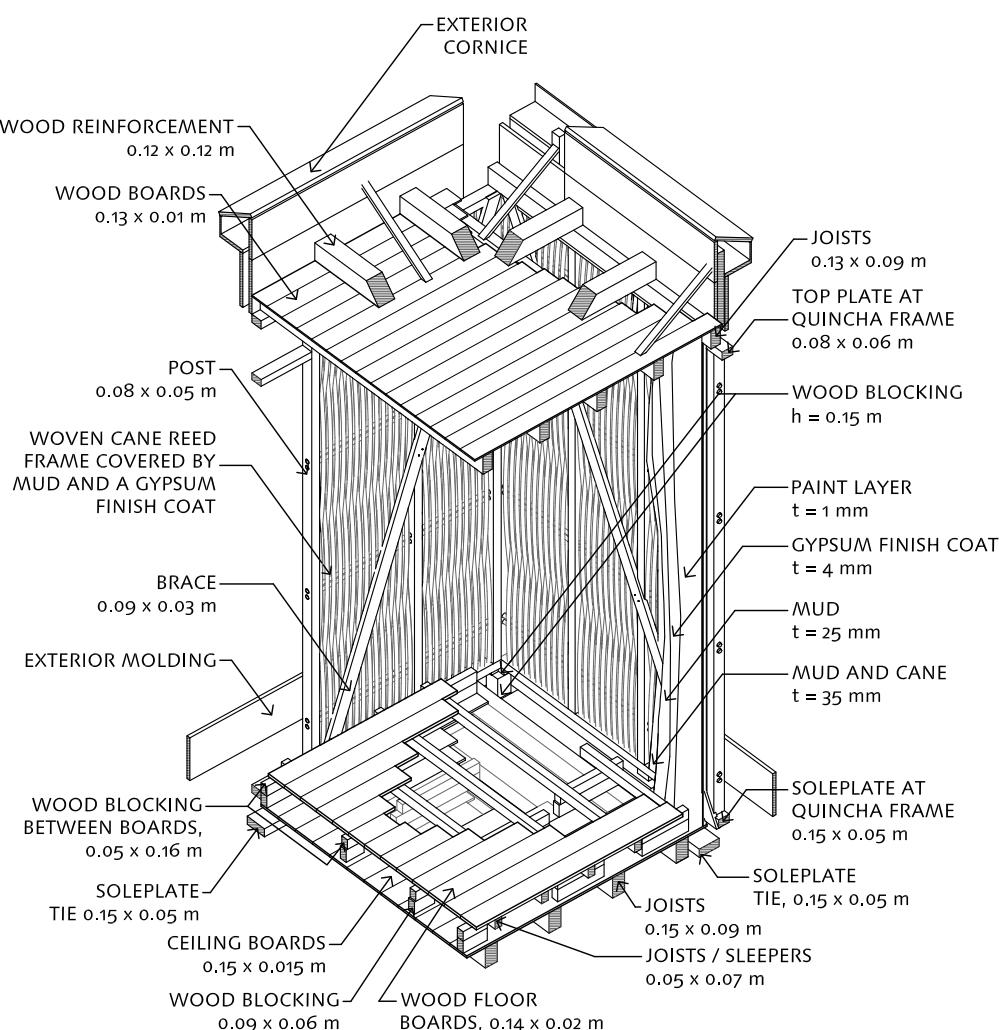
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Structural Prospection  
IW-1F

HC-P-33



## THIRD FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC

SCALE 1:50

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Sheet Title:

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IIIS-1

Drafted By:  
Fernando Olmos

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Arch. Mirna Soto

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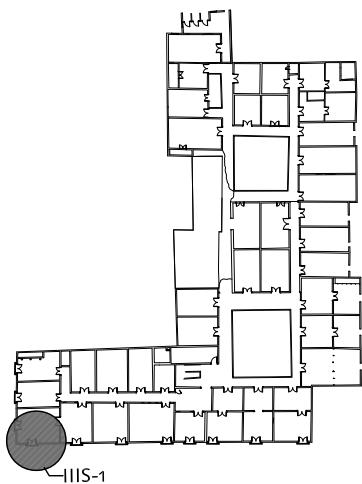
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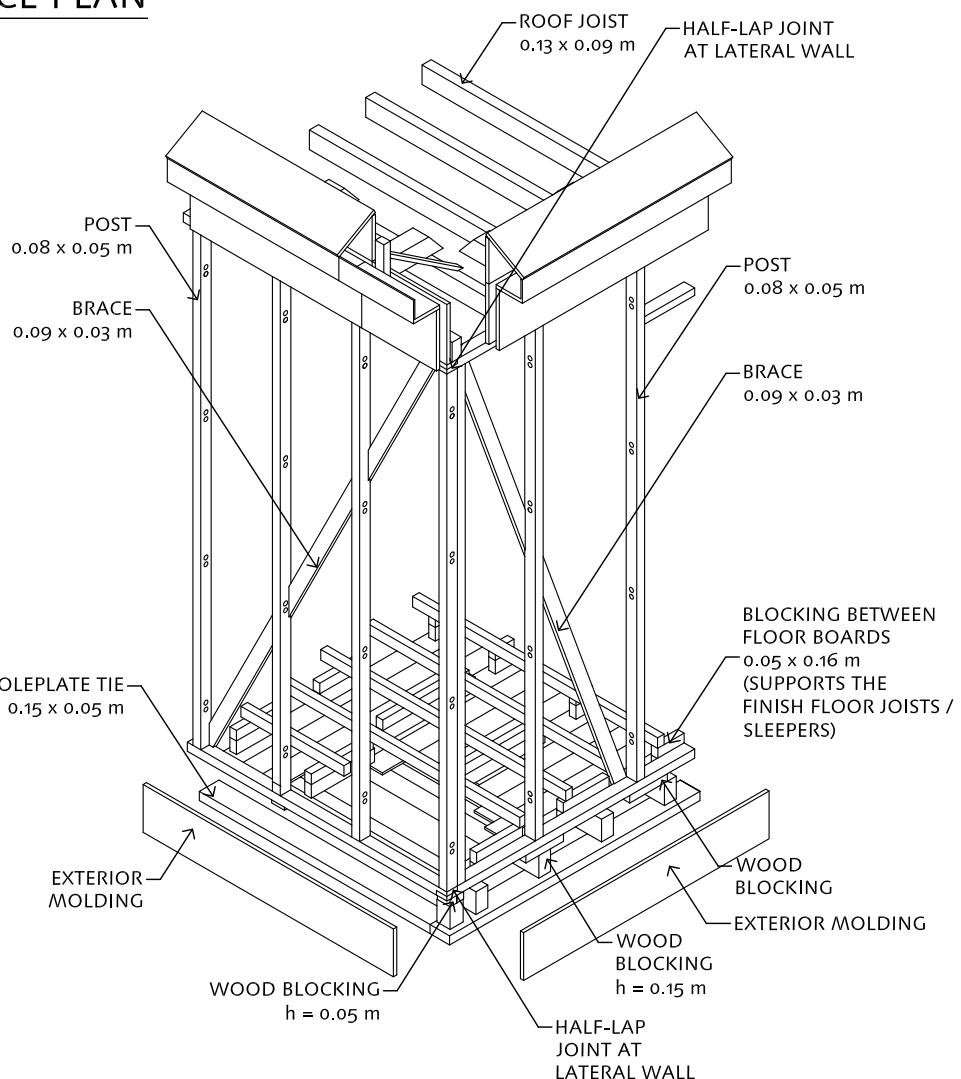
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## THIRD FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC, FRAMING ONLY

SCALE 1:50

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The Getty Conservation Institute



UNIVERSITY OF  
BATH



PONTIFICIA  
UNIVERSIDAD  
CATÓLICA  
DEL PERÚ

Building:

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Lima, Perú

Drafted By:  
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Scale:  
As noted

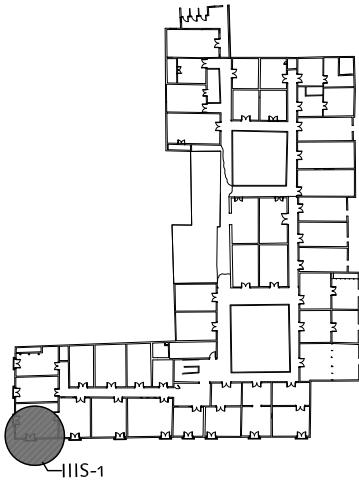
Facilitator:  
Universidad Católica Sedes Sapientiae

Sheet No.:

Edited and Translated By:  
Jabdiel Zapata

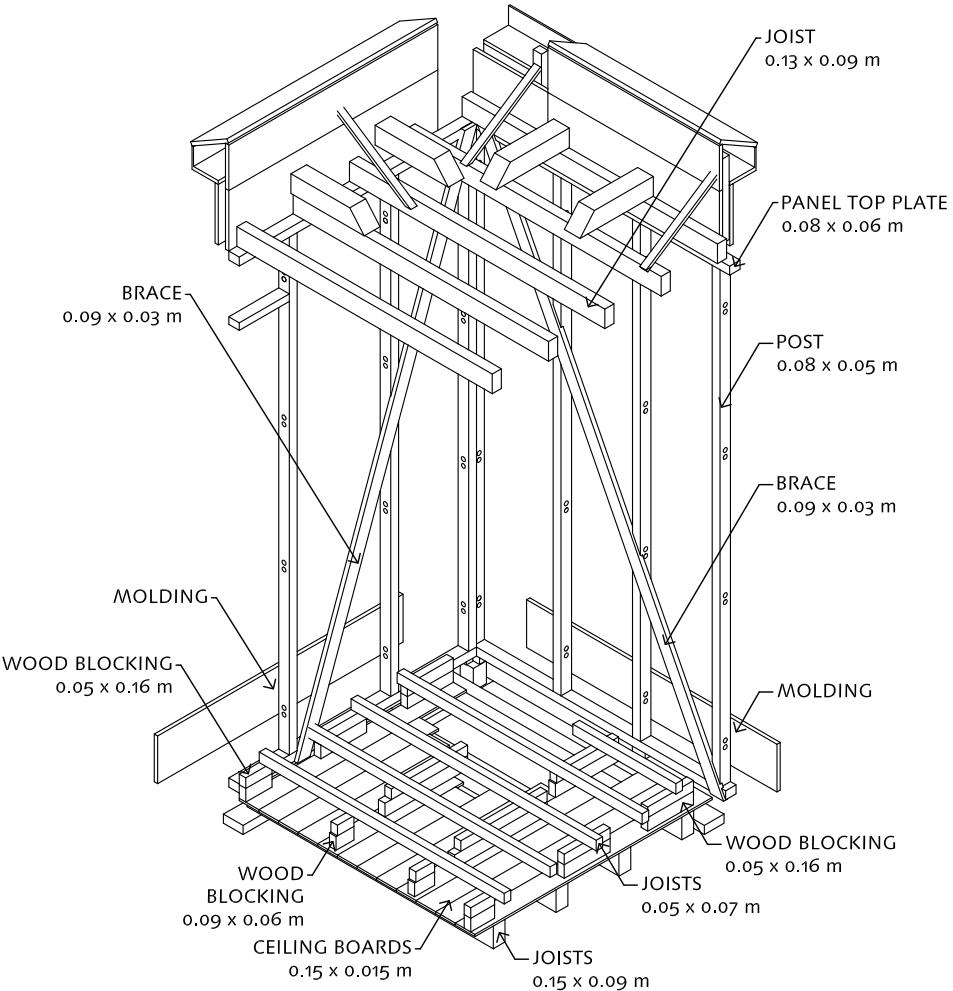
@Seismicisolation  
Sheet Title: Structural Prospection  
IIIS-1

HC-P-35



## THIRD FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC, FRAMING ONLY

SCALE 1:50

True scale when printed on 8-1/2" x 11" sheet.

### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

Sheet No.:

Edited and Translated By:  
Jabdiel Zapata

@Seismicisolation  
Sheet Title: Structural Prospections  
IIIS-1

HC-P-36



IIIS-1

**IIIS-1**

THIS OPENING IS LOCATED IN A THIRD FLOOR ROOM THAT FORMS THE CORNER OF THE BUILDING.

THE FLOOR IS THIS ROOM IS CONSTRUCTED AS FOLLOWS:

OVER THE CAP PLATE AT THE SECOND FLOOR QUINCHA WALL, THERE IS A  $0.14 \times 0.10$  m JOIST. PARALLEL TO THIS ARE ALL THE OTHER JOISTS THAT CAN BE OBSERVED AT THE CEILING OF THE SECOND FLOOR BELOW. THE SPACING BETWEEN THE JOISTS IS  $0.40$  m.

OVER THESE BEAMS IS WOOD DECKING, AND OVER THIS DECKING ARE ANOTHER SET OF JOISTS THAT RUN TRANSVERSALLY. WOOD BLOCKING HAS BEEN INSTALLED UNDER MANY OF THESE JOISTS TO RAISE THEM UP. ON TOP OF THESE JOISTS IS MORE DECKING THAT FORMS THE FINISH FLOOR OF THE ROOM.

THE WALLS ARE CONSTRUCTED AS FOLLOWS:

STARTING AT THE TOP OF THE SECOND FLOOR WALL BELOW, THE CAP PLATE RESTS ON THE TOP PLATE OF THE SECOND FLOOR QUINCHA WALL FRAMES (THIS TOP PLATE RECEIVES THE TOPS OF THE POSTS AT THE SECOND FLOOR WALLS). THE CAP PLATE SUPPORTS THE THIRD FLOOR JOISTS. THE ENDS OF THE JOISTS EXTEND INTO THE FAÇADE WALL. OVER THE JOISTS IS THE SOLEPLATE OF THE THIRD FLOOR WALL FRAMES. THE SOLEPLATE IS FORMED BY TWO PIECES UNITED TO INCREASE THE DEPTH. THE SOLEPLATE IS CONNECTED TO THE WALL POSTS ABOVE WITH MORTISE-AND-TENON JOINTS. THE JOIST ENDS EXTEND FAR INTO THE WALL, RIGHT UP TO THE EXTERIOR FACE OF THE WALL. THE JOIST ENDS ARE COVERED BY A TALL WOOD MOLDING, WHICH ALSO SERVES AS A DECORATIVE ELEMENT ON THE FAÇADE.

THE BASE OF THE WALL FRAMES AT THE THIRD LEVEL IS NOT FILLED ("CITARA"). THE VERTICAL CANES (A TYPE OF CANE WITH A FILLED CENTER, CALLED "CAÑA BRAVA") ARE WOVEN THROUGH THREE HORIZONTAL CANES. THESE HORIZONTAL CANES PASS THROUGH HOLES IN THE WOOD POSTS. THE FRAMES ARE BRACED WITH A DIAGONAL WOOD MEMBER EXTENDING FROM FLOOR TO CEILING. WHERE THE DIAGONALS INTERSECT WOOD POSTS, THERE IS A HALF-LAP JOINT, WHICH ALLOWS BOTH THE DIAGONAL AND POST TO REMAIN FLUSH.

THE TOPS OF THE WOOD POSTS ARE CONNECTED TO THE TOP PLATE WITH MORTISE-AND-TENON JOINTS. THE ENTIRE WALL IS COVERED WITH A THICK LAYER OF MUD PLASTER AND A GYPSUM FINISH COAT.

THE CEILING IN THIS ROOM ALSO SERVES AS THE ROOF. ITS CONSTRUCTION IS AS FOLLOWS:

OVER THE TOP PLATE AT THE WALL FRAMES, THERE ARE JOISTS SPACED AT  $0.40$  m. OVER THE JOISTS THERE IS WOOD DECKING. OVER THE DECKING IS A LAYER OF MUD, THEN A SECOND LAYER OF MUD AND STRAW, FOLLOWED BY A THIRD LAYER OF MUD, AND FINALLY A LAYER OF LOOSE SOIL (APPARENTLY CARRIED BY THE WIND OVER A LONG PERIOD OF TIME).

THE ENDS OF THE JOISTS PROJECT DEEP INTO THE FAÇADE WALL AND ARE COVERED WITH A WOOD TRIM THAT SERVES AS THE BUILDING CORNICE. THE TOP OF THE CORNICE IS HIGHER THAN THE ROOF LEVEL, THUS FORMING A PARAPET WALL. THIS PARAPET IS SUPPORTED BY VERTICAL WOOD BATTENS, DIAGONAL WOOD BATTENS ACTING AS STRUTS, AND LARGE WOOD BLOCKS, ALL OF WHICH ARE NAILED TO THE ROOF DECK.

True scale when printed on 8-1/2" x 11" sheet.

**SEISMIC RETROFITTING PROJECT**

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

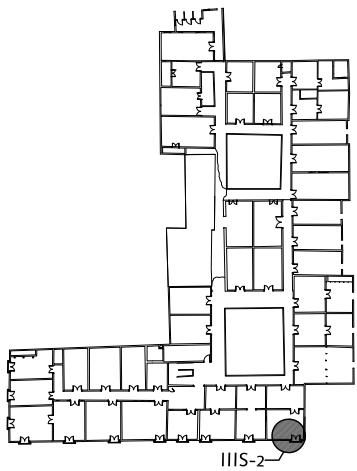
Sheet No.:

Edited and Translated By:  
Jabdiel Zapata

Sheet Title:  
Structural Prospection  
IIIS-1

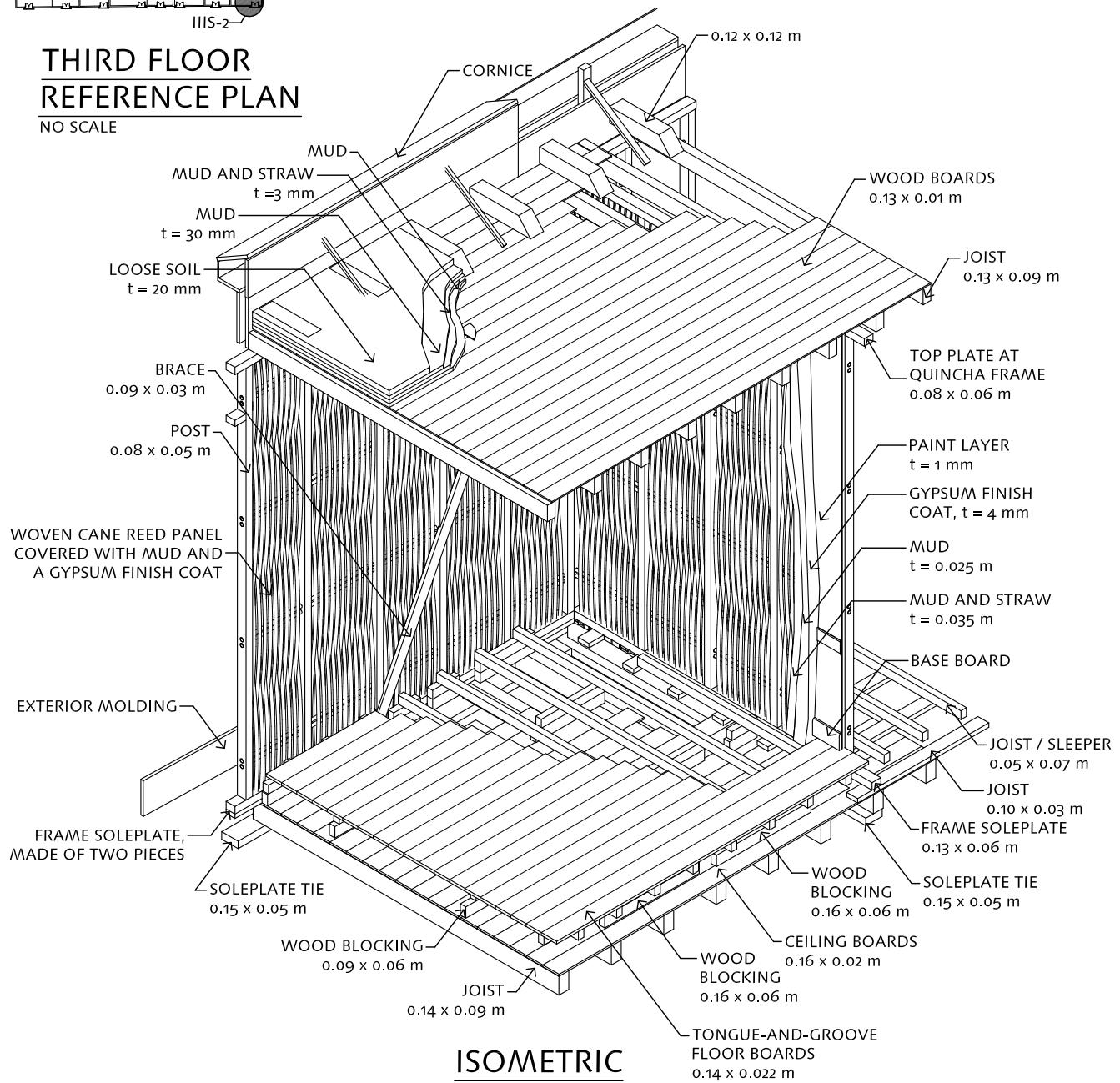
**HC-P-37**

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### THIRD FLOOR REFERENCE PLAN

NO SCALE



**SEISMIC RETROFITTING PROJECT**  
The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Sheet Title:

Structural Prospection  
IIIS-2

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:

Universidad Católica Sedes Sapientiae

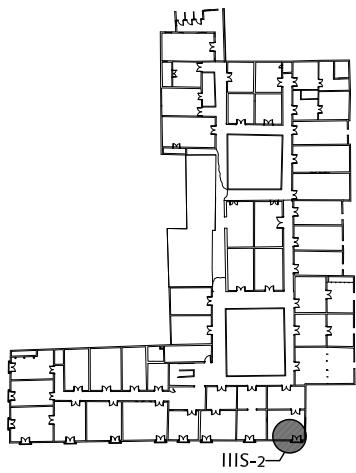
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Edited and Translated By:

Jabdiel Zapata

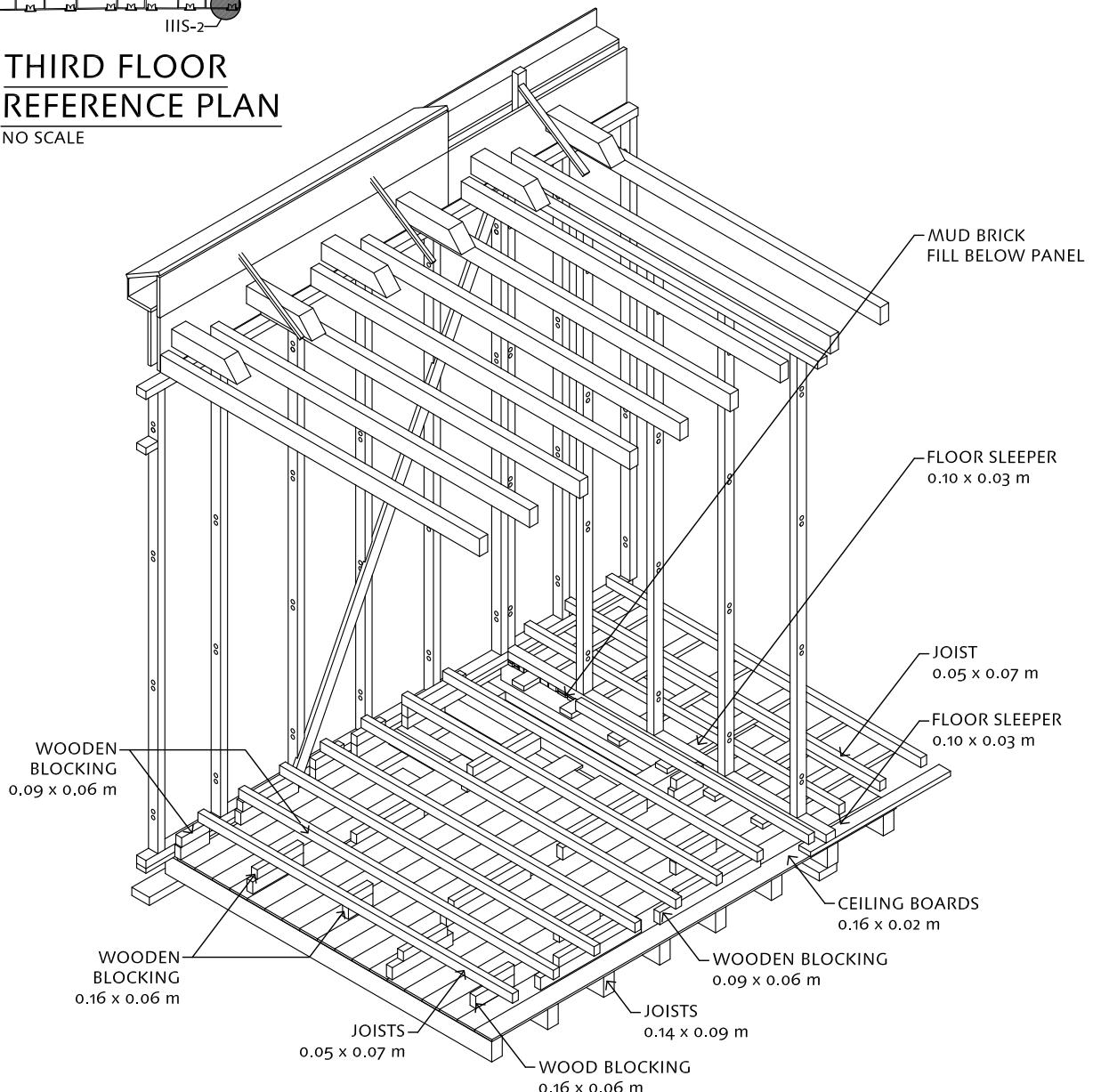
**HC-P-38**

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## THIRD FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC, FRAMING ONLY

SCALE 1:50

True scale when printed on 8-1/2" x 11" sheet.

### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

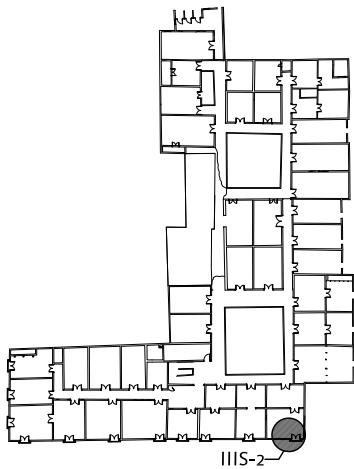
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Edited and Translated By:  
Jabdiel Zapata

Sheet Title:  
Structural Prospection  
IIIS-2

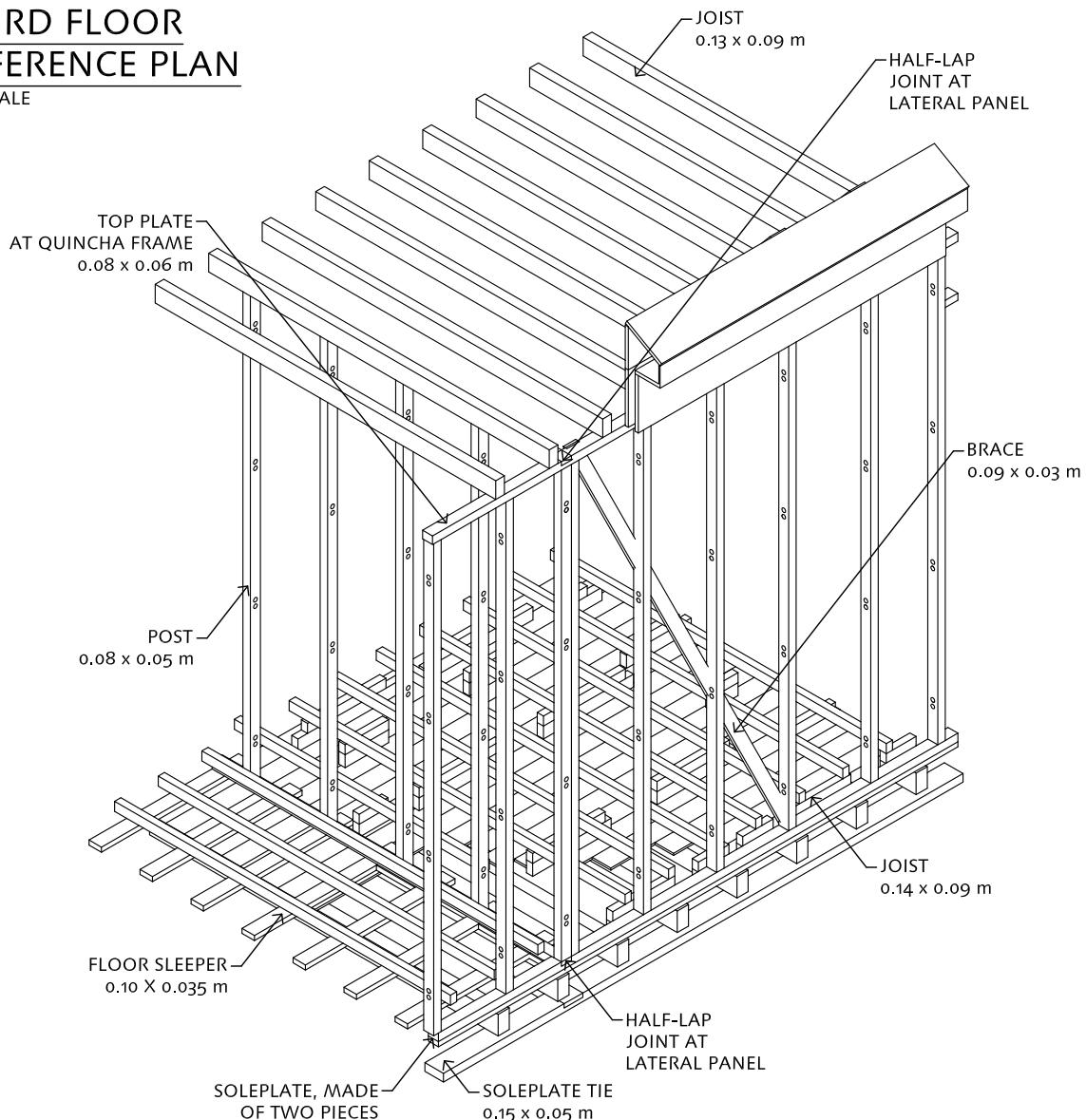
HC-P-39

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## THIRD FLOOR REFERENCE PLAN

NO SCALE



## ISOMETRIC, FRAMING ONLY

SCALE 1:50

True scale when printed on 8-1/2" x 11" sheet.

### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

Sheet No.:

Edited and Translated By:

Jabdiel Zapata

@Seismicisolation  
Sheet Title: Structural Prospection  
IIIS-2

HC-P-40



IIIS-2

**IIIS-2**

THIS OPENING IS LOCATED IN A THIRD FLOOR ROOM ABOVE THE ENTRY HALL.

THE FLOOR IS THIS ROOM IS CONSTRUCTED AS FOLLOWS:

OVER THE CAP PLATE AT THE SECOND FLOOR QUINCHA WALL, THERE IS A  $0.14 \times 0.10$  m JOIST. PARALLEL TO THIS ARE ALL THE OTHER JOISTS THAT CAN BE OBSERVED AT THE CEILING OF THE SECOND FLOOR BELOW. THE SPACING BETWEEN THE JOISTS IS  $0.40$  m.

OVER THESE BEAMS IS WOOD DECKING, AND OVER THIS DECKING ARE ANOTHER SET OF JOISTS THAT RUN TRANSVERSALLY. WOOD BLOCKING HAS BEEN INSTALLED UNDER MANY OF THESE JOISTS TO RAISE THEM UP. ON TOP OF THESE JOISTS IS MORE DECKING THAT FORMS THE FINISH FLOOR OF THE ROOM.

THE WALLS ARE CONSTRUCTED AS FOLLOWS:

STARTING AT THE TOP OF THE SECOND FLOOR WALL BELOW, THE CAP PLATE RESTS ON THE TOP PLATE OF THE SECOND FLOOR QUINCHA WALL FRAMES (THIS TOP PLATE RECEIVES THE TOPS OF THE POSTS AT THE SECOND FLOOR WALLS). THE CAP PLATE SUPPORTS THE THIRD FLOOR JOISTS. THE ENDS OF THE JOISTS EXTEND INTO THE FAÇADE WALL. OVER THE JOISTS IS THE SOLEPLATE OF THE THIRD FLOOR WALL FRAMES. THE SOLEPLATE IS FORMED BY TWO PIECES UNITED TO INCREASE THE DEPTH. THE SOLEPLATE IS CONNECTED TO THE WALL POSTS ABOVE WITH MORTISE-AND-TENON JOINTS. THE JOIST ENDS EXTEND FAR INTO THE WALL, RIGHT UP TO THE EXTERIOR FACE OF THE WALL. THE JOIST ENDS ARE COVERED BY A TALL WOOD MOLDING, WHICH ALSO SERVES AS A DECORATIVE ELEMENT ON THE FAÇADE.

THE BASE OF THE WALL FRAMES AT THE THIRD LEVEL IS NOT FILLED ("CITARA"). THE VERTICAL CANES (A TYPE OF CANE WITH A FILLED CENTER, CALLED "CAÑA BRAVA") ARE WOVEN THROUGH THREE HORIZONTAL CANES. THESE HORIZONTAL CANES PASS THROUGH HOLES IN THE WOOD POSTS. THE FRAMES ARE BRACED WITH A DIAGONAL WOOD MEMBER EXTENDING FROM FLOOR TO CEILING, WHERE THE DIAGONALS INTERSECT WOOD POSTS, THERE IS A HALF-LAP JOINT, WHICH ALLOWS BOTH THE DIAGONAL AND POST TO REMAIN FLUSH.

THE TOPS OF THE WOOD POSTS ARE CONNECTED TO THE TOP PLATE WITH MORTISE-AND-TENON JOINTS. THE ENTIRE WALL IS COVERED WITH A THICK LAYER OF MUD PLASTER AND A GYPSUM FINISH COAT.

THE CEILING IN THIS ROOM ALSO SERVES AS THE ROOF. ITS CONSTRUCTION IS AS FOLLOWS:

OVER THE TOP PLATE AT THE WALL FRAMES, THERE ARE JOISTS SPACED AT  $0.40$  m. OVER THE JOISTS THERE IS WOOD DECKING, OVER THE DECKING IS A LAYER OF MUD, THEN A SECOND LAYER OF MUD AND STRAW, FOLLOWED BY A THIRD LAYER OF MUD, AND FINALLY A LAYER OF LOOSE SOIL (APPARENTLY CARRIED BY THE WIND OVER A LONG PERIOD OF TIME).

THE ENDS OF THE JOISTS PROJECT DEEP INTO THE FAÇADE WALL AND ARE COVERED WITH A WOOD TRIM THAT SERVES AS THE BUILDING CORNICE. THE TOP OF THE CORNICE IS HIGHER THAN THE ROOF LEVEL, THUS FORMING A PARAPET WALL. THIS PARAPET IS SUPPORTED BY VERTICAL WOOD BATTENS, DIAGONAL WOOD BATTENS ACTING AS STRUTS, AND LARGE WOOD BLOCKS, ALL OF WHICH ARE NAILED TO THE ROOF DECK.

True scale when printed on 8-1/2" x 11" sheet.

**SEISMIC RETROFITTING PROJECT**

The Earthen Architecture Initiative



Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

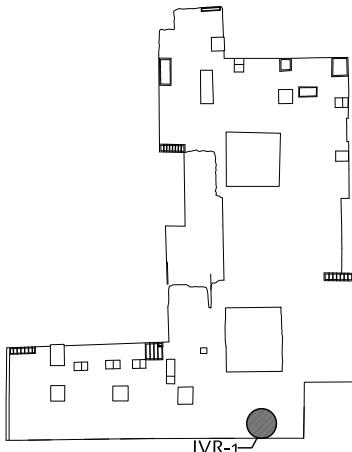
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Jabdiel Zapata

Sheet Title:  
Structural Prospection  
IIIS-2

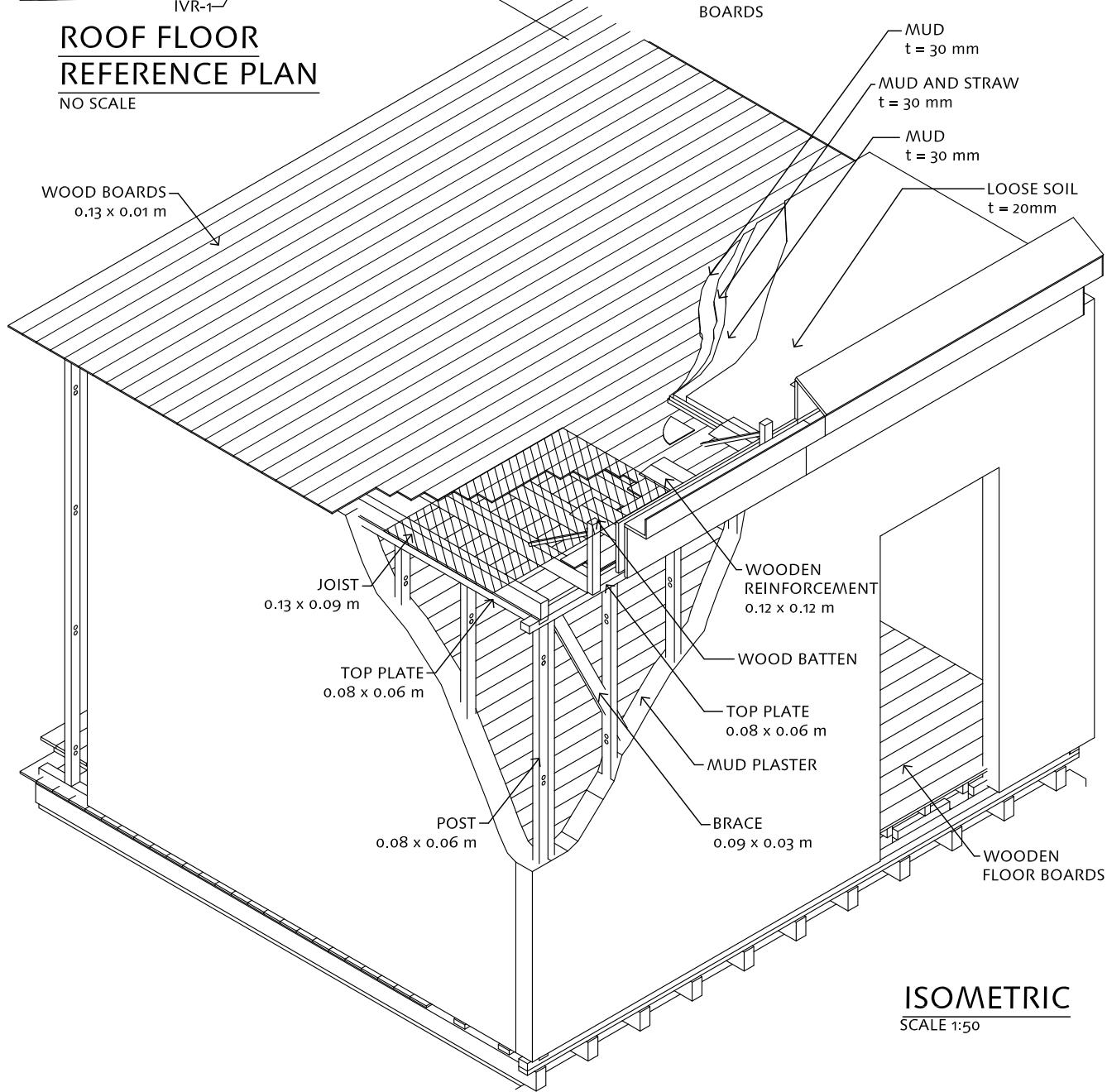
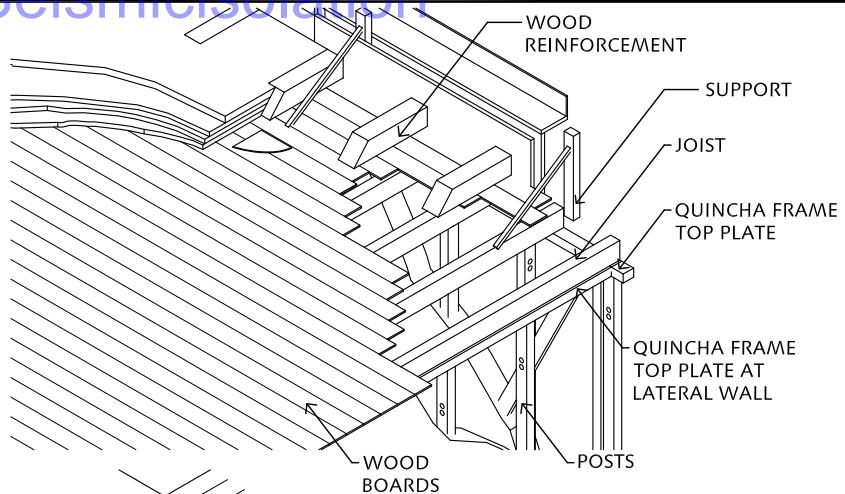
**HC-P-41**

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## ROOF FLOOR REFERENCE PLAN

NO SCALE



**ISOMETRIC**

SCALE 1:50

True scale when printed on 8-1/2" x 11" sheet.

### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



The Getty Conservation Institute



UNIVERSITY OF  
BATH

Building:

HOTEL COMERCIO  
Lima, Perú

Drafted By:  
Fernando Olmos

Date:  
October 2011

Supervisor:  
Arch. Mirna Soto

Scale:  
As noted

Facilitator:  
Universidad Católica Sedes Sapientiae

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IVR-1

HC-P-42



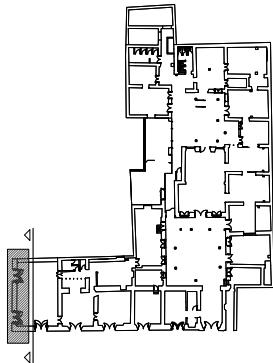
IVR-1

IVR-1

THIS OPENING IS LOCATED ON THE ROOF. ITS CONSTRUCTION IS AS FOLLOWS:

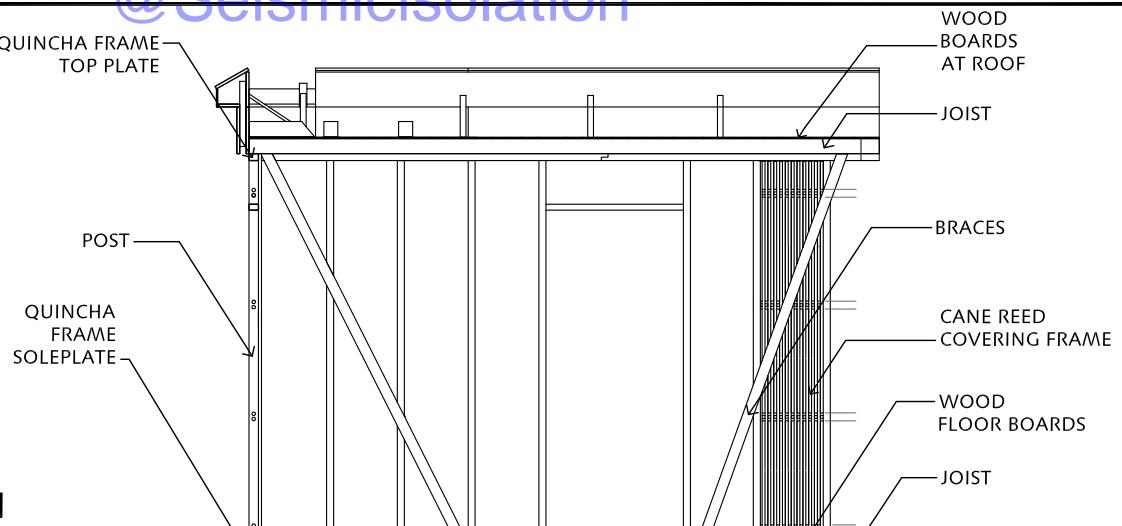
OVER THE TOP PLATE AT THE WALL FRAMES AT THE THIRD LEVEL BELOW, THERE ARE JOISTS SPACED AT 0.40 m. OVER THE JOISTS THERE IS WOOD DECKING. OVER THE DECKING IS A LAYER OF MUD, THEN A SECOND LAYER OF MUD AND STRAW, FOLLOWED BY A THIRD LAYER OF MUD, AND FINALLY A LAYER OF LOOSE SOIL (APPARENTLY CARRIED BY THE WIND OVER A LONG PERIOD OF TIME).

THE ENDS OF THE JOISTS PROJECT DEEP INTO THE FAÇADE WALL AND ARE COVERED WITH A WOOD TRIM THAT SERVES AS THE BUILDING CORNICE. THE TOP OF THE CORNICE IS HIGHER THAN THE ROOF LEVEL, THUS FORMING A PARAPET WALL. THIS PARAPET IS SUPPORTED BY VERTICAL WOOD BATTENS, DIAGONAL WOOD BATTENS ACTING AS STRUTS, AND LARGE WOOD BLOCKS, ALL OF WHICH ARE NAILED TO THE ROOF DECK.



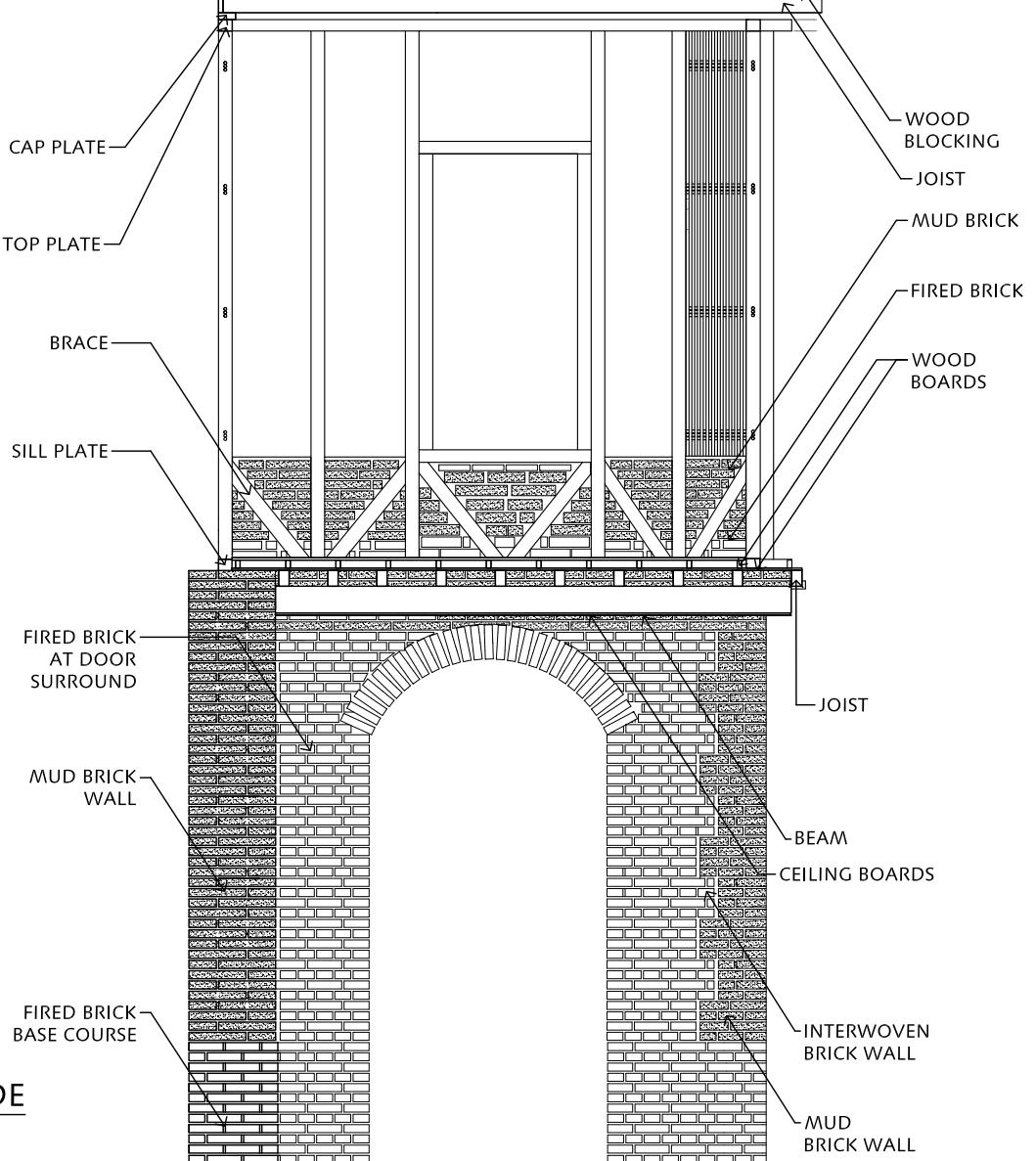
## FIRST FLOOR REFERENCE PLAN

NO SCALE



## STRUCTURAL BAY NORTHEAST FAÇADE

NO SCALE



True scale when printed on 8-1/2" x 11" sheet.

### SEISMIC RETROFITTING PROJECT

The Earthen Architecture Initiative



The Getty Conservation Institute



Building:

HOTEL COMERCIO  
Lima, Perú

Sheet Title:

Structural Scheme  
Northeast Façade

Drafted By:

Fernando Olmos

Date:

October 2011

Supervisor:

Arch. Mirna Soto

Scale:

As noted

Facilitator:

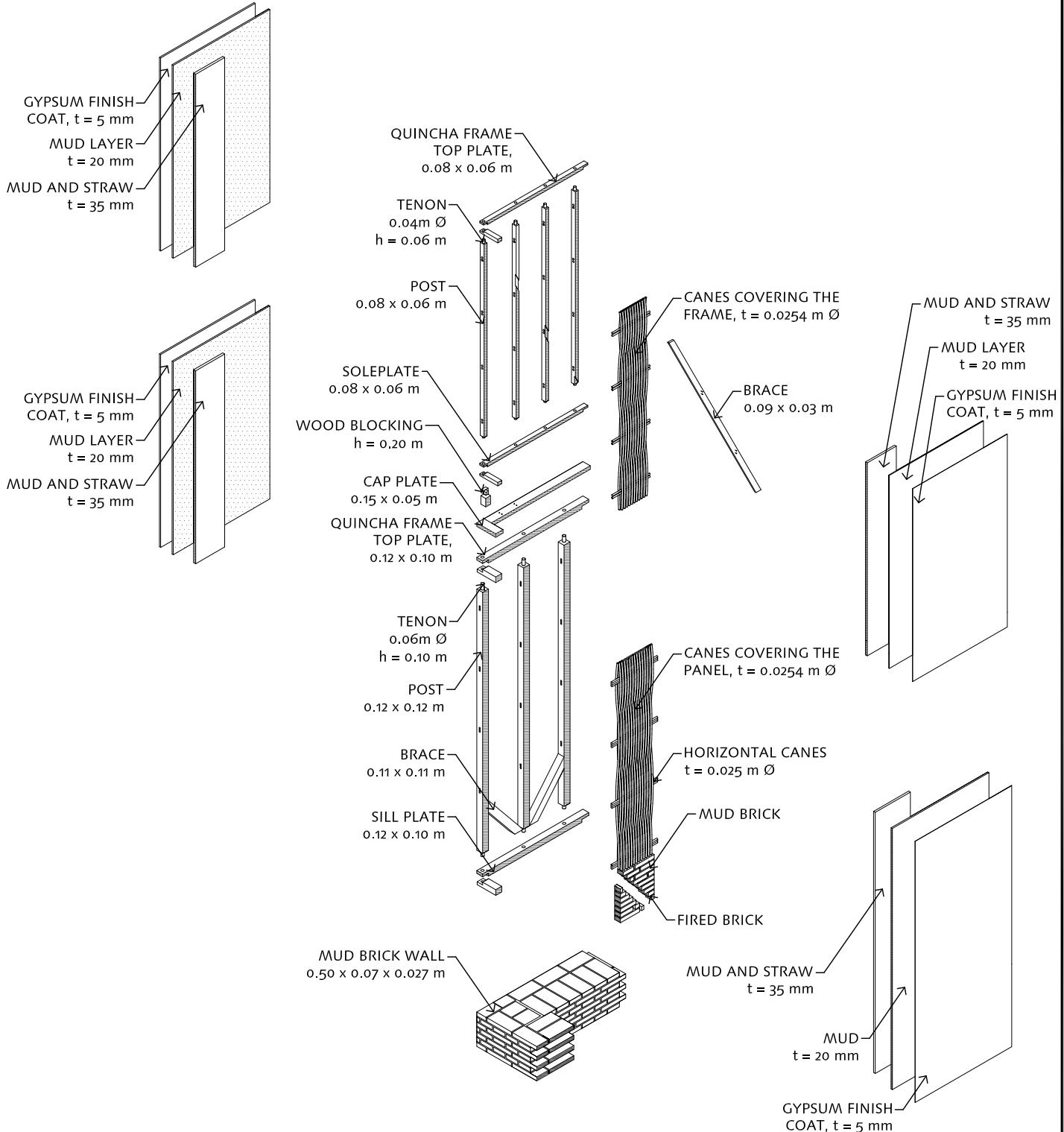
Universidad Católica Sedes Sapientiae

Edited and Translated By:

Jabdiel Zapata

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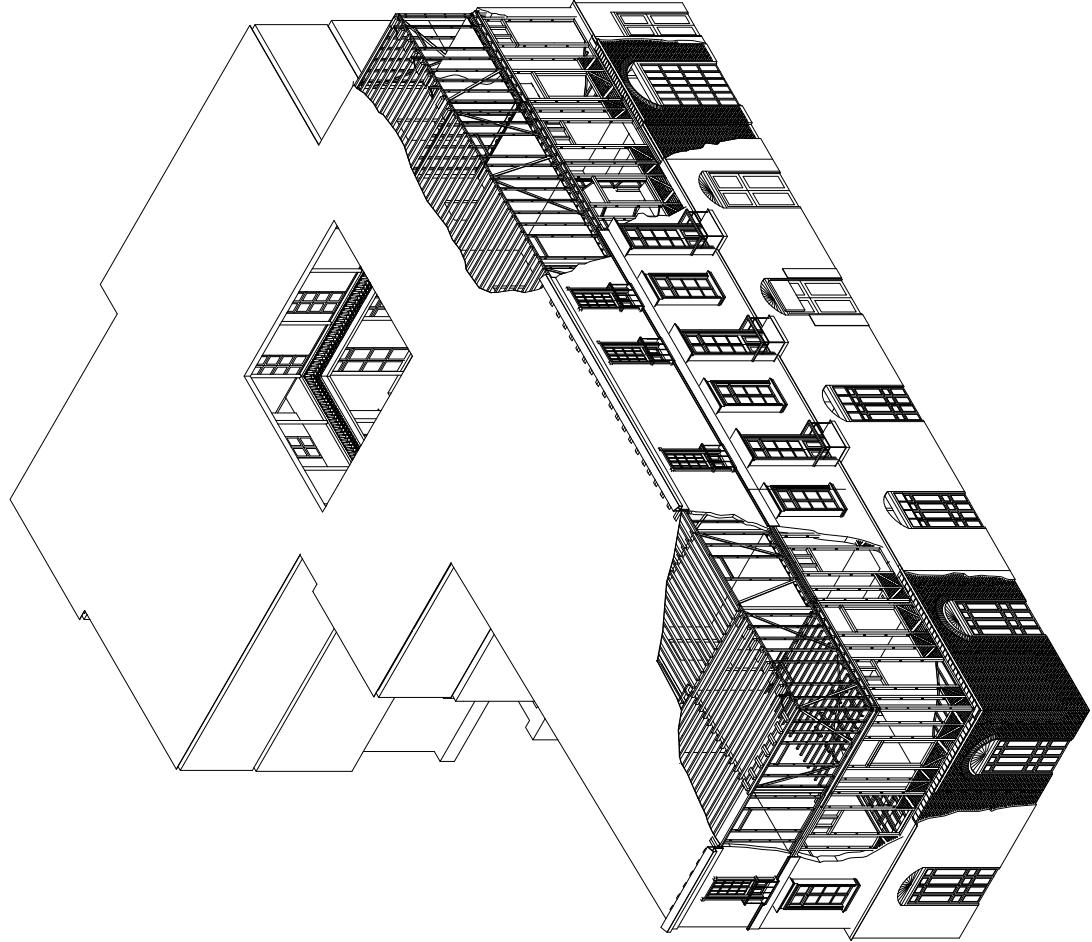
HC-P-44



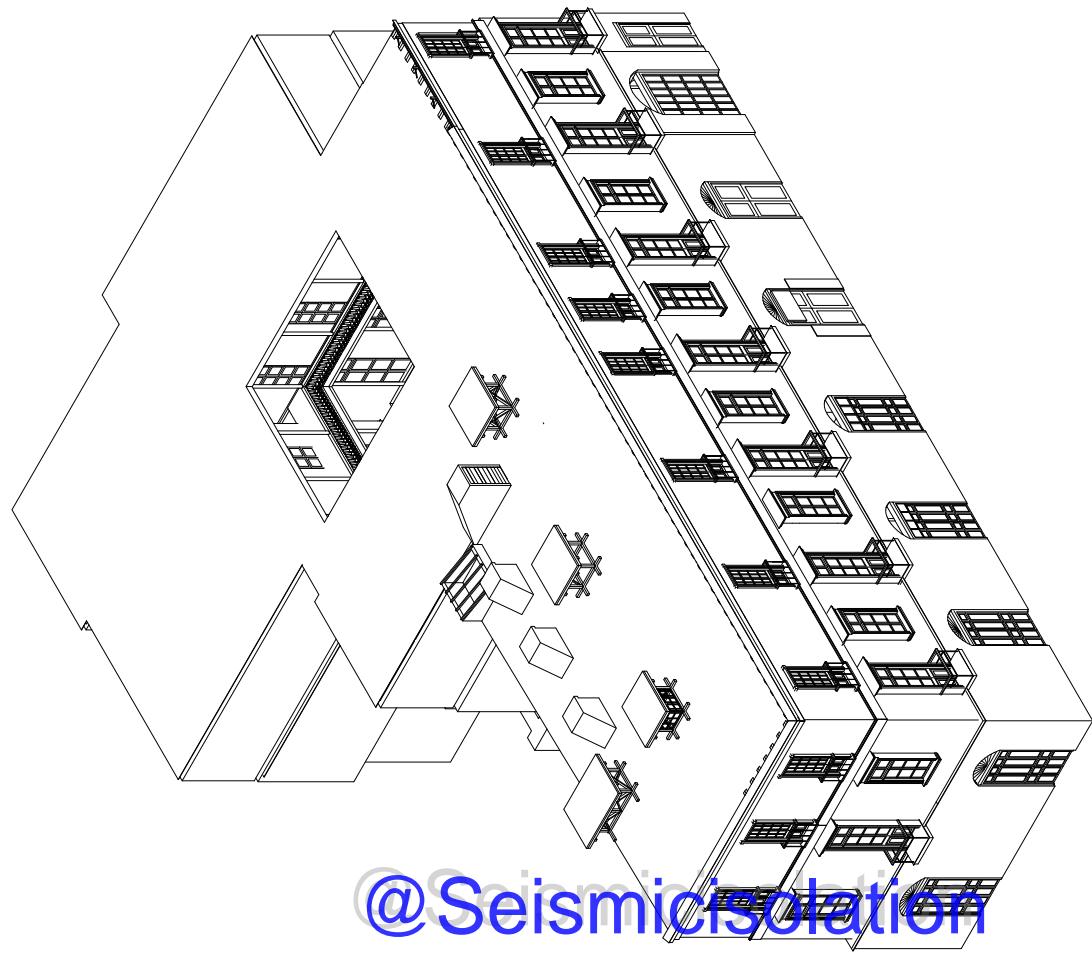
## STRUCTURAL BAY AT NORTHEAST FAÇADE

SCALE 1:100

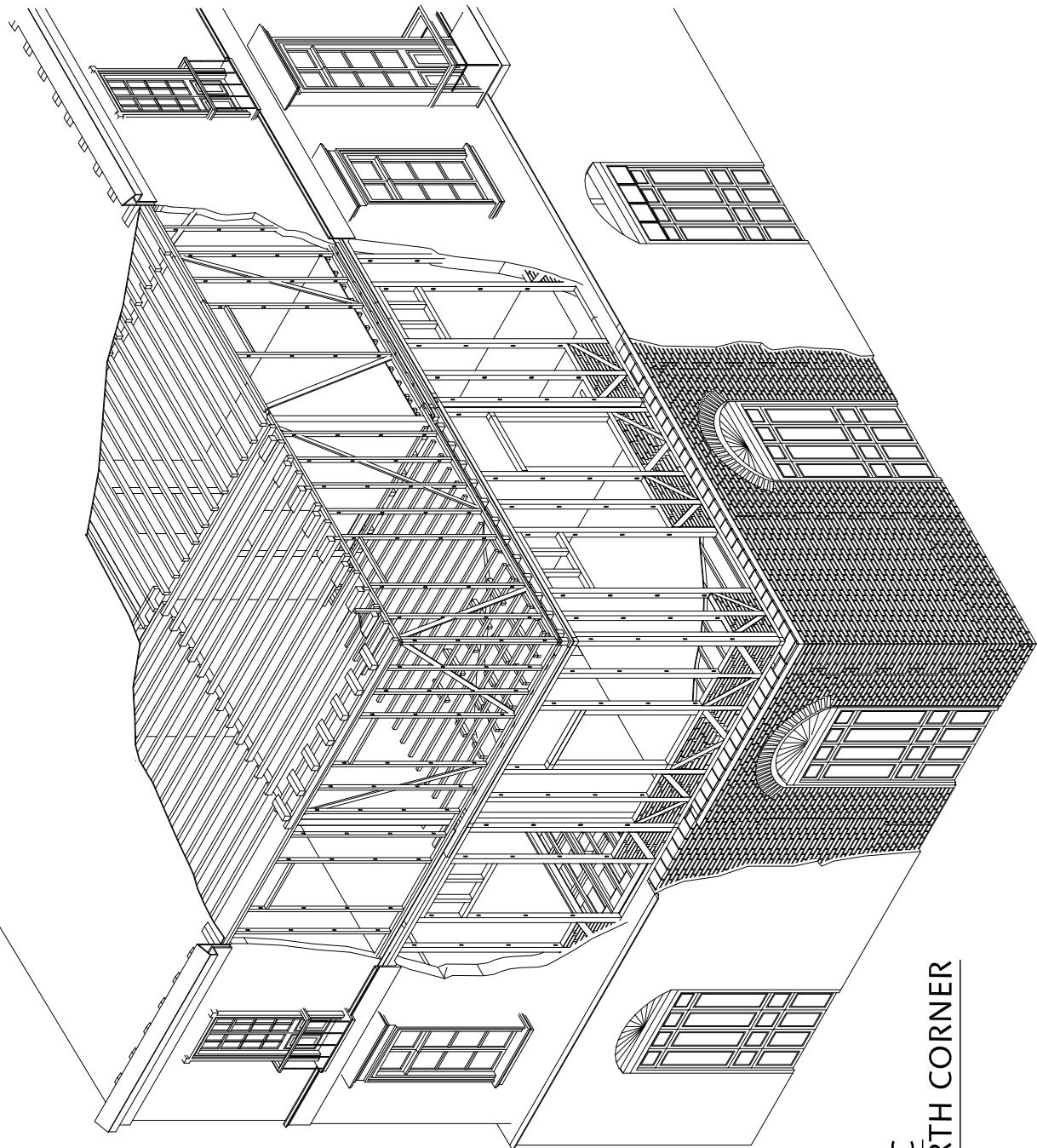
True scale when printed on 8-1/2" x 11" sheet.



**ISOMETRIC VIEW FROM THE NORTH**  
NO SCALE

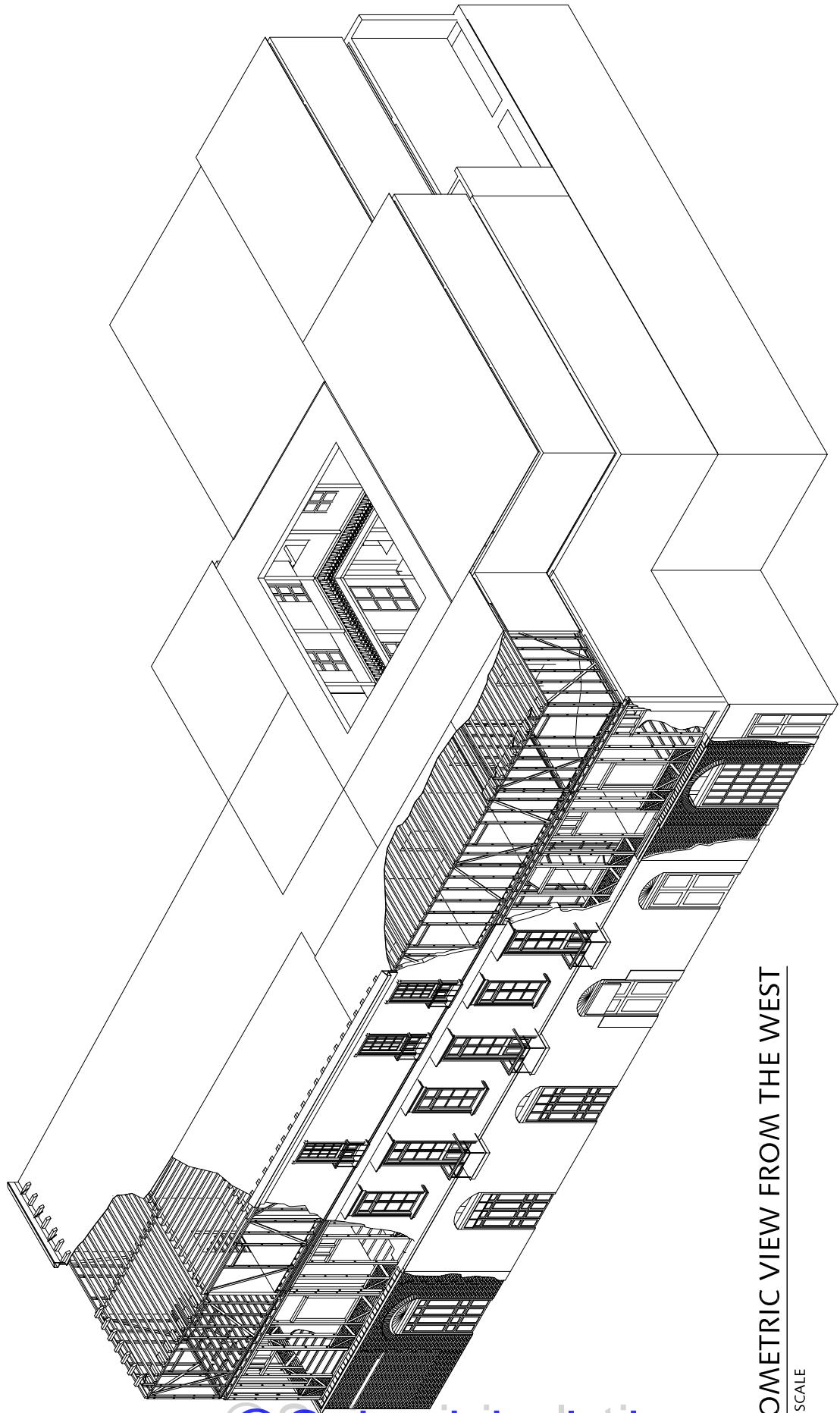


<b>SEISMIC RETROFITTING PROJECT</b> The Earthen Architecture Initiative	Building:	HOTEL COMERCIO Lima, Perú
The Getty Conservation Institute	Sheet Title:	Overall Structural Scheme
PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ	Drafted By:	Fernando Olmos
UNIVERSITY OF BATH	Supervisor:	Arch. Mina Soto
UNIVERSITY OF BATH	Date:	October 2011
UNIVERSITY OF BATH	Scale:	As noted
UNIVERSITY OF BATH	Sheet No.:	HC-P-46
UNIVERSITY OF BATH	Facilitator:	Universidad Católica Sedes Sapientiae
UNIVERSITY OF BATH	Edited and Translated By:	Jabdiel Zapata



**DETAIL ISOMETRIC  
VIEW OF THE NORTH CORNER**  
NO SCALE

<b>SEISMIC RETROFITTING PROJECT</b> The Earthen Architecture Initiative	Building:	HOTEL COMERCIO Lima, Perú
The Getty Conservation Institute	Sheet Title:	Overall Structural Scheme
PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ	Drafted By:	Fernando Olmos
UNIVERSITY OF <b>BATH</b>	Supervisor:	Arch. Mina Soto
True scale when printed on 8-1/2" x 11" sheet.	Date:	October 2011
	Scale:	As noted
	Sheet No.:	<b>HC-P-47</b>
	Facilitator:	Universidad Católica Sedes Sapientiae
	Edited and Translated By:	Jabiel Zapata



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<b>SEISMIC RETROFITTING PROJECT</b> The Earthen Architecture Initiative	Building:	HOTEL COMERCIO Lima, Perú
The Getty Conservation Institute	Sheet Title:	Overall Structural Scheme
PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ	Drafted By:	Fernando Olmos
UNIVERSITY OF <b>BATH</b>	Supervisor:	Arch. Mina Soto
UNIVERSITY OF <b>BATH</b>	Facilitator:	Universidad Católica Sedes Sapientiae
UNIVERSITY OF <b>BATH</b>	Edited and Translated By:	Jabdiel Zapata
UNIVERSITY OF <b>BATH</b>	Date:	October 2011
UNIVERSITY OF <b>BATH</b>	Scale:	As noted
UNIVERSITY OF <b>BATH</b>	Sheet No.:	<b>HC-P-48</b>