



CAFETERIA BLOCK



AICS-Italian Agency for Development
Cooperation – SDN
13 Project St. no 33 Amarat, House no 25
Block 12 K-east Khartoum, SUDAN

AL-Amarat Mohamed Najeeb Street, Khartoum

TEL. +249925451234
+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR
STATE

STRUCTURAL
ENGINEER :

ENG. Rayan Ahmed

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING
TITLE :

COVER PAGE

DATE: Issue Date



INDEX :

AR.100

SCALE :




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A4	Door & windows Details
A5	Furniture Plan
A6	Roof Plan
A7	Elevations
A8	Sections
A9	Electricity Details
S01	Genaeral 3D
S02	Grade Beam Plan
S03	Walls Plan
S04	Foundation Section & Detail
S05	Roof Structural Details
S06	Roof Installation Method
S07	Section

AICS-Italian Agency for Development Cooperation – SDN
 13 Project St. no 33 Amarat, House no 25
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 TEL. +249925451234
 +249115418666
 EMAIL: DQTC.ENGINEERING@GMAIL.COM



PROGRAM TITLE :

PROJECT TITLE :
 Project Name

LOCATION :
 ## Street
 City, State Zip


STRUCTURAL ENGINEER :
 ENG.Designer
 CHECKED BY :
 ENG. AMRAN MOHAMMED OTHMAN

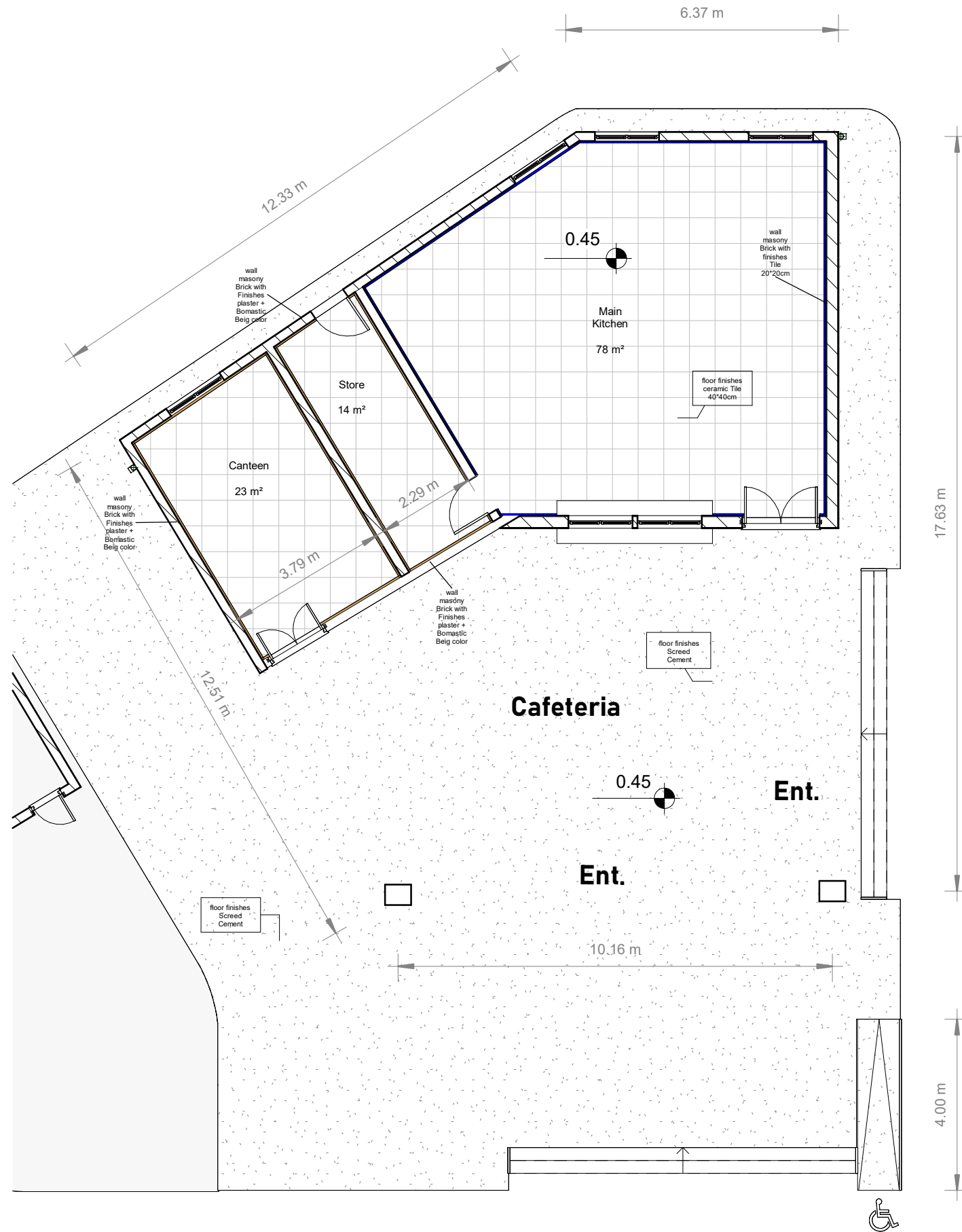
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 Sheet List

DATE : Issue Date



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SCALE :





1 Cafeteria Block Finishing
1 : 120





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DOUBLE QTC ENGINEERING

Legend:

	internal flooring(+0.45)with ceramic tiles (60x60cm)
	internal flooring(+0.45)with ceramic tiles (40x40cm)
	Screed cement finishing
	wall ceramic tiles (20x20cm)
	internal wall finishes paint (Bomastic) Beig color

PROGRAM TITLE :

PROJECT TITLE :

Project Name

LOCATION :

Street
City, State Zip

STRUCTURAL ENGINEER :

ENG.Designer


CHECKED BY :

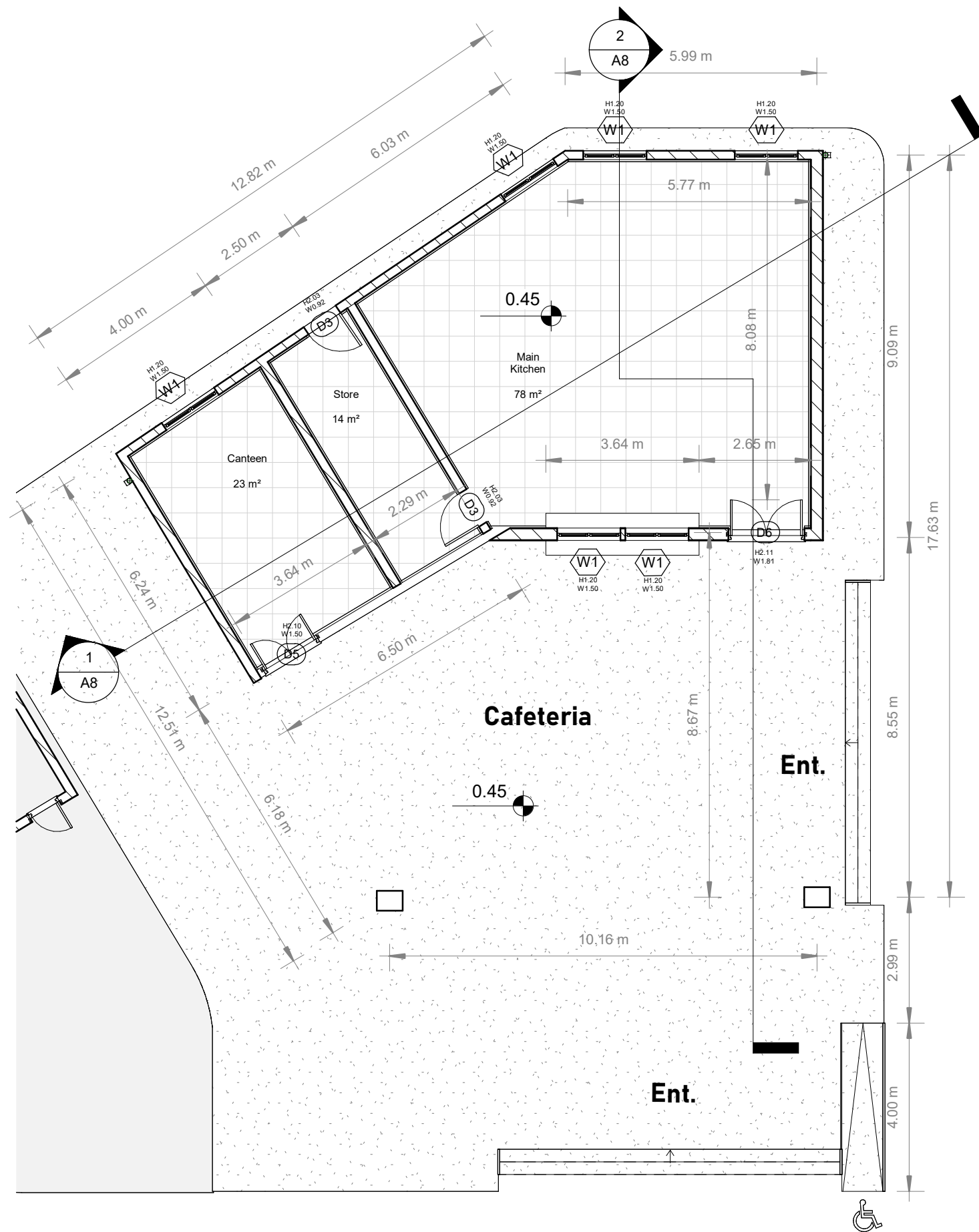
ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Finishing Plan

DATE : Issue Date

INDEX :	SCALE :	
A3	As indicated	



Cafeteria Block Door & windows
1 : 120

Legend					
type	width	height	count	elevation floor	floor plan
D1	1.00	2.00			
D2	1.00	2.10			
D3	0.91	2.03	2		
D4	0.76	2.13			
D5	1.50	2.10	1		
D6	1.81	2.11	1		
D7	2.90	2.90			

Legend					
type	width	height	count	elevation floor	floor plan
W1	1.50	1.20	6		
W2	1.80	2.00			
W3	2.01	2.50			
W4	0.60	0.60			

AGENZIA ITALIANA
PER LA COOPERAZIONE
ALLO SVILUPPO

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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

PROJECT TITLE :

Project Name

LOCATION :

Street
City, State Zip

STRUCTURAL
ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

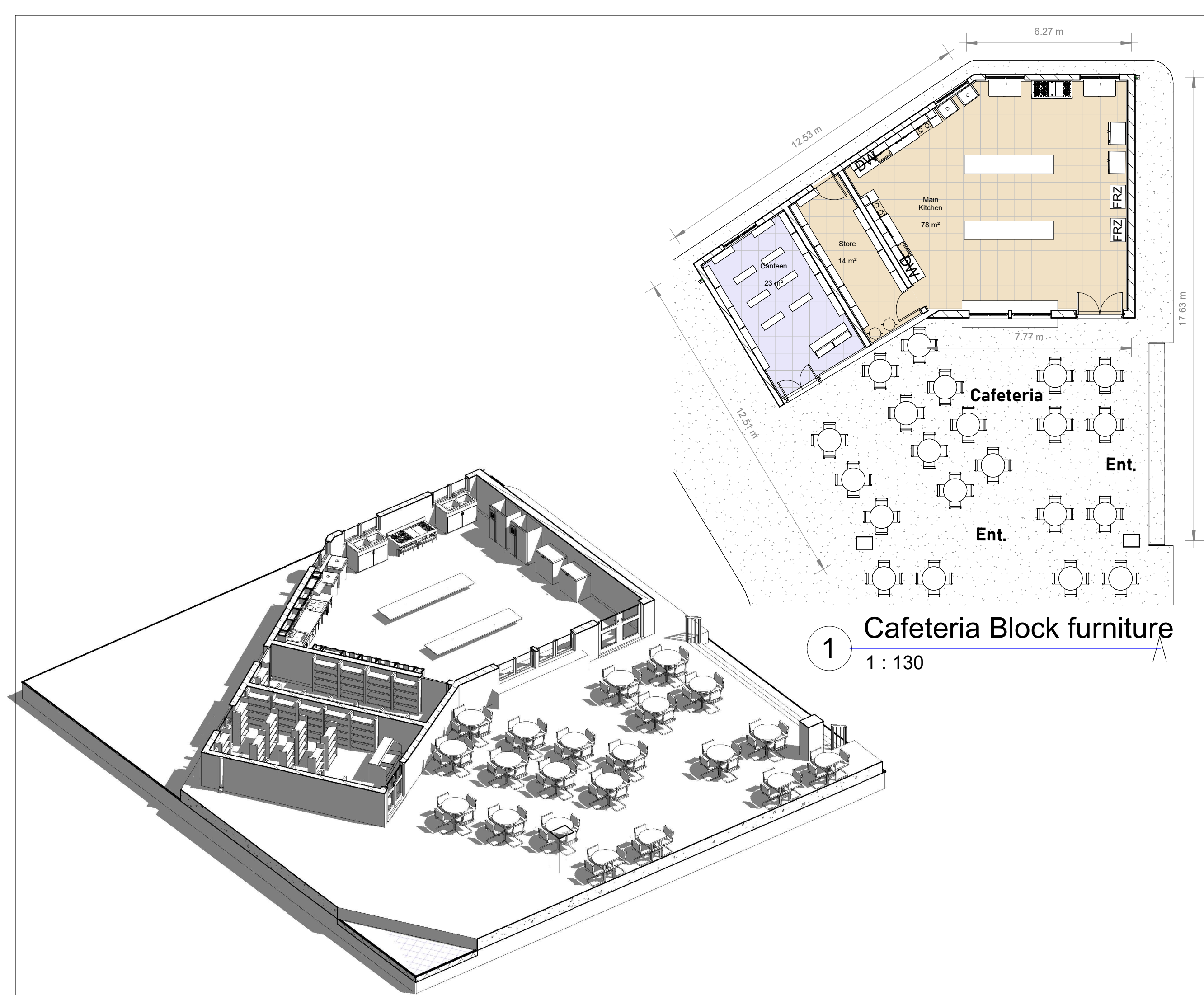
DRAWING
TITLE :

Door & windows Details

DATE : Issue Date

INDEX : A4

SCALE : As indicated



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DOUBLE QTC ENGINEERING



PROGRAM TITLE :

PROJECT TITLE :

Project Name

LOCATION :

Street
City, State Zip

STRUCTURAL
ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING
TITLE :

Furniture Plan

DATE : Issue Date

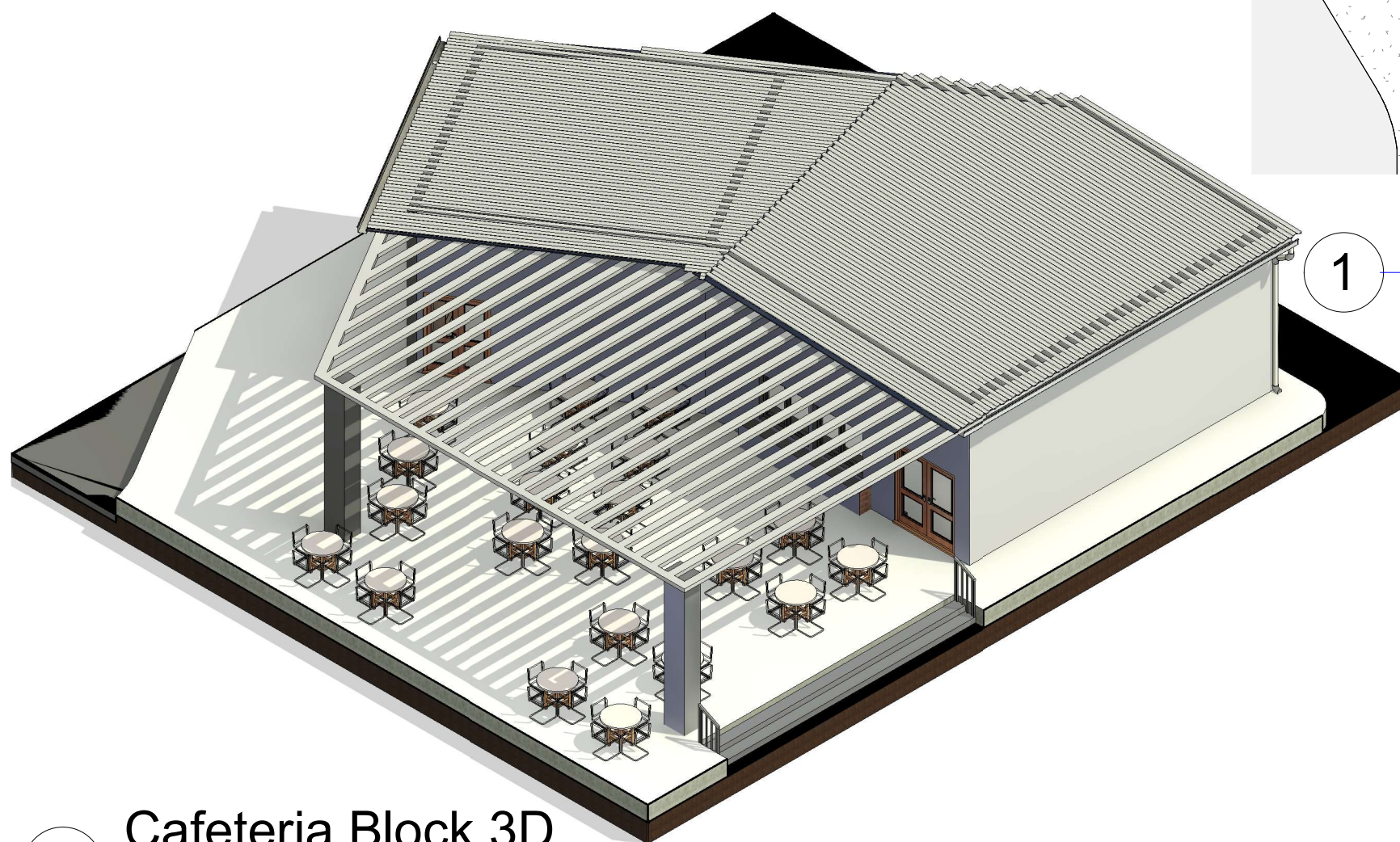
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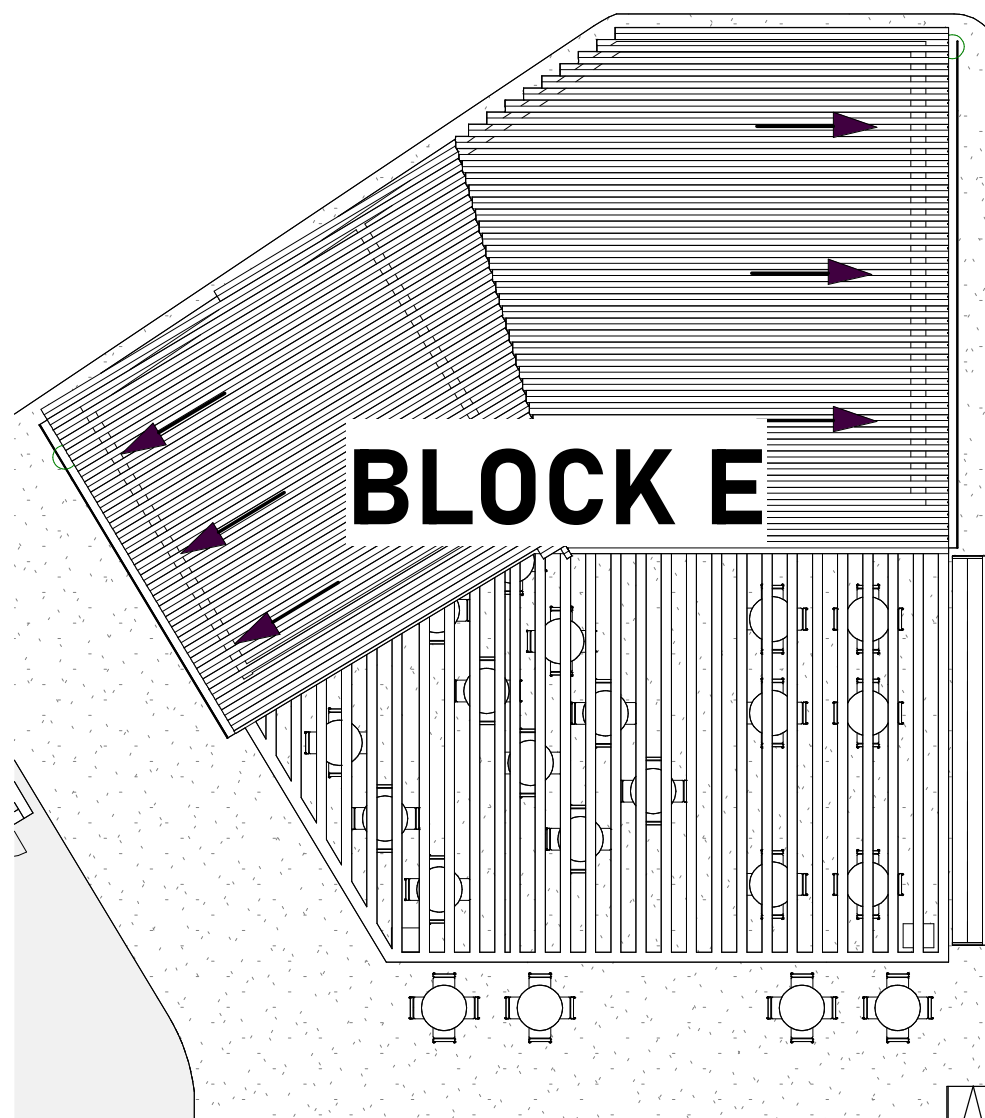
SCALE :

As
indicated





Cafeteria Block 3D



Cafeteria Block ROOF

1 PLAN
1 : 150

2



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DOUBLE QTC ENGINEERING



PROGRAM TITLE :

PROJECT TITLE :

Project Name

LOCATION :

Street
City, State Zip

STRUCTURAL
ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING
TITLE :

Roof Plan

DATE : Issue Date

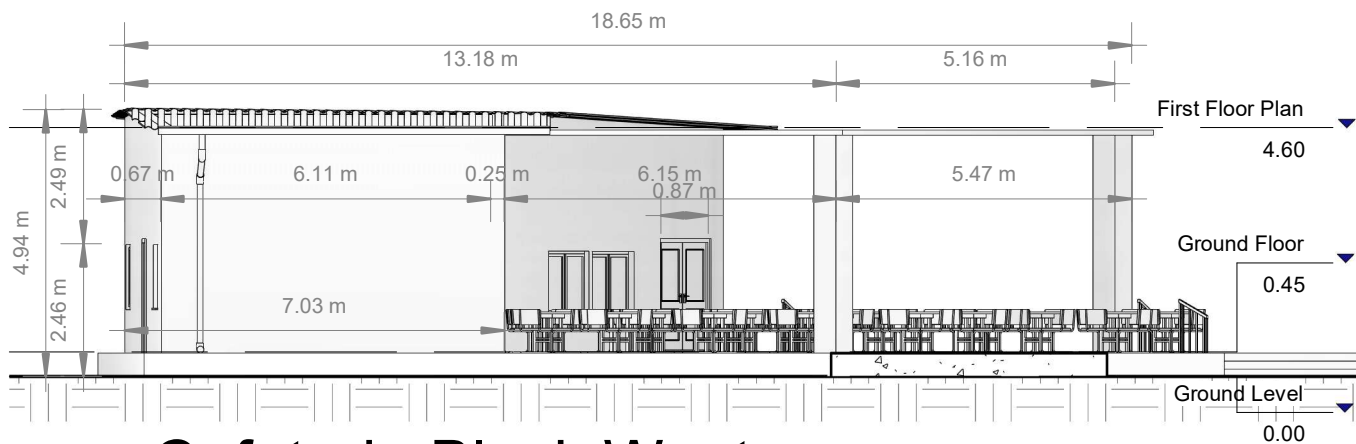
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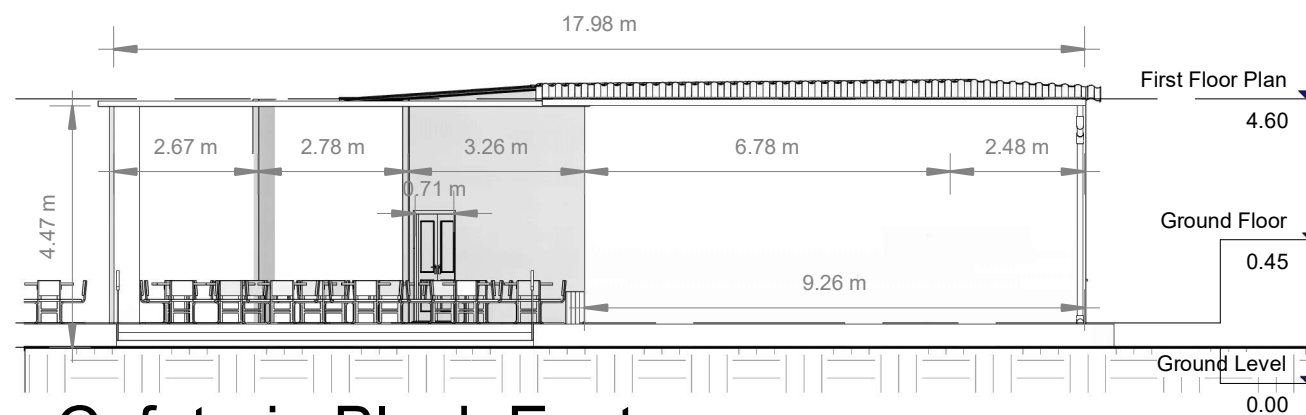
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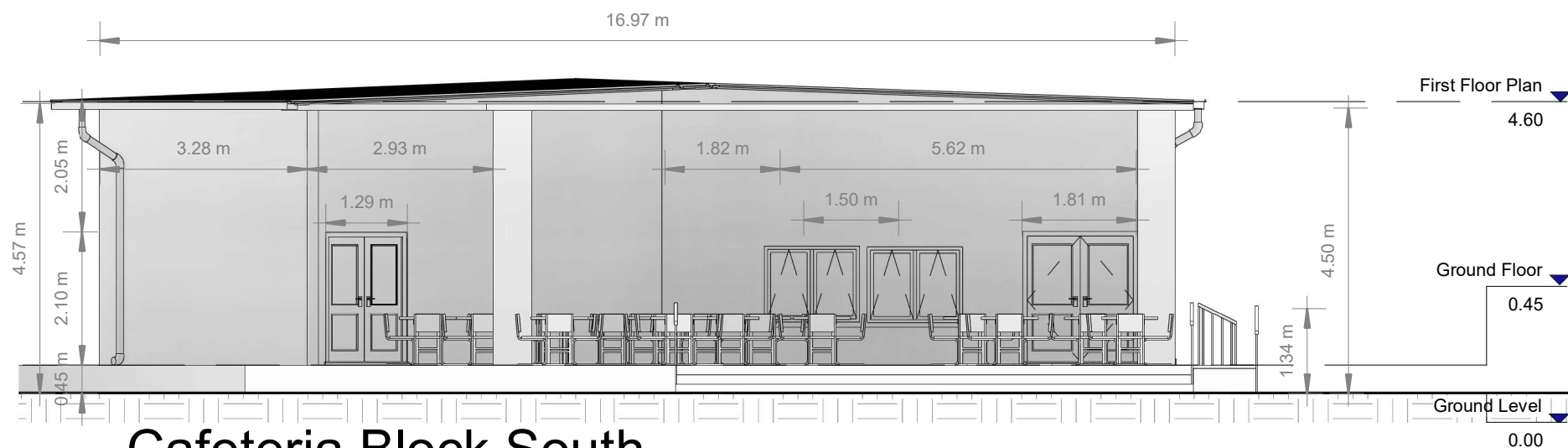




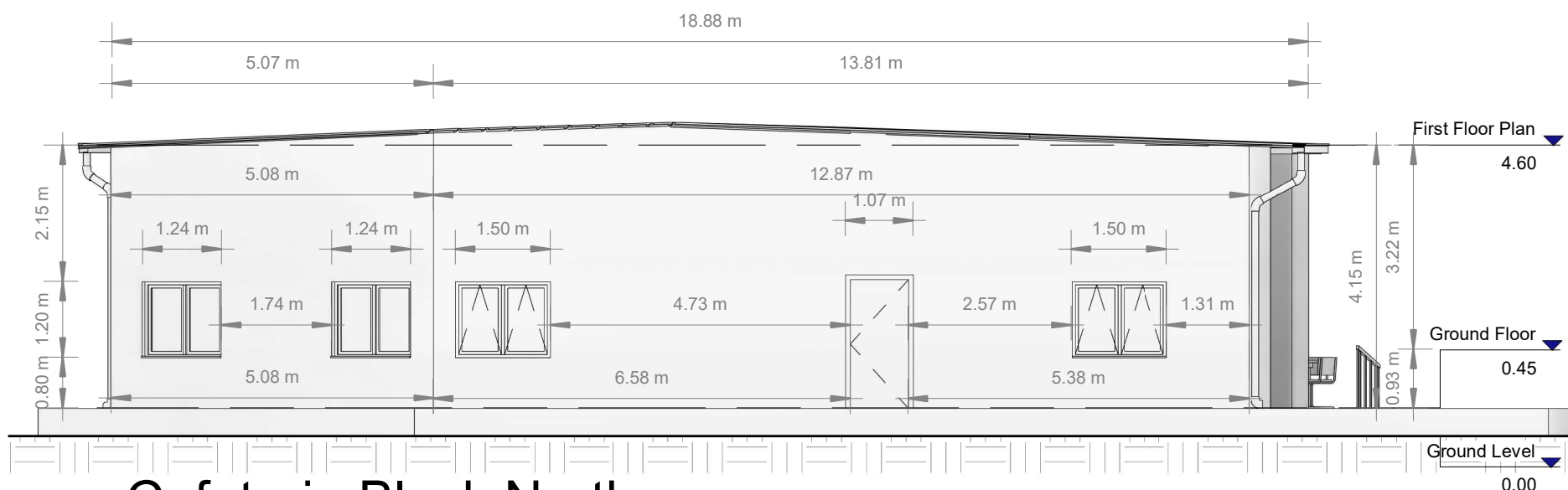
4 Cafeteria Block West
Elevation
1:140



3 Cafeteria Block East
Elevation
1:140



2 Cafeteria Block South
Elevation
1:100



1 Cafeteria Block North
Elevation
1:100



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PROGRAM TITLE:

PROJECT TITLE:

Project Name

LOCATION:

Street
City, State Zip

STRUCTURAL
ENGINEER:

ENG.Designer

CHECKED BY:

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DRAWING
TITLE:

Elevations

DATE: Issue Date

INDEX:

A7












SCALE:

As
indicated





legend

	Wall Tiles 15X15
	Emulsion paint (internal) from 1.70m up to ceiling
	Glossy oil paint (internal) from floor up to 1.70m
	Skirting Tiles 40X10
	Floor Tiles 40X40
	Compacted Soil
	False ceiling
	Roof Heat Insulator
	Rain Drain Pipe
	Galvanized Gutters
	Screed cement finishing

PROGRAM TITLE :

PROJECT TITLE :

Project Name

LOCATION :

Street
City, State Zip

STRUCTURAL
ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING
TITLE :

Sections

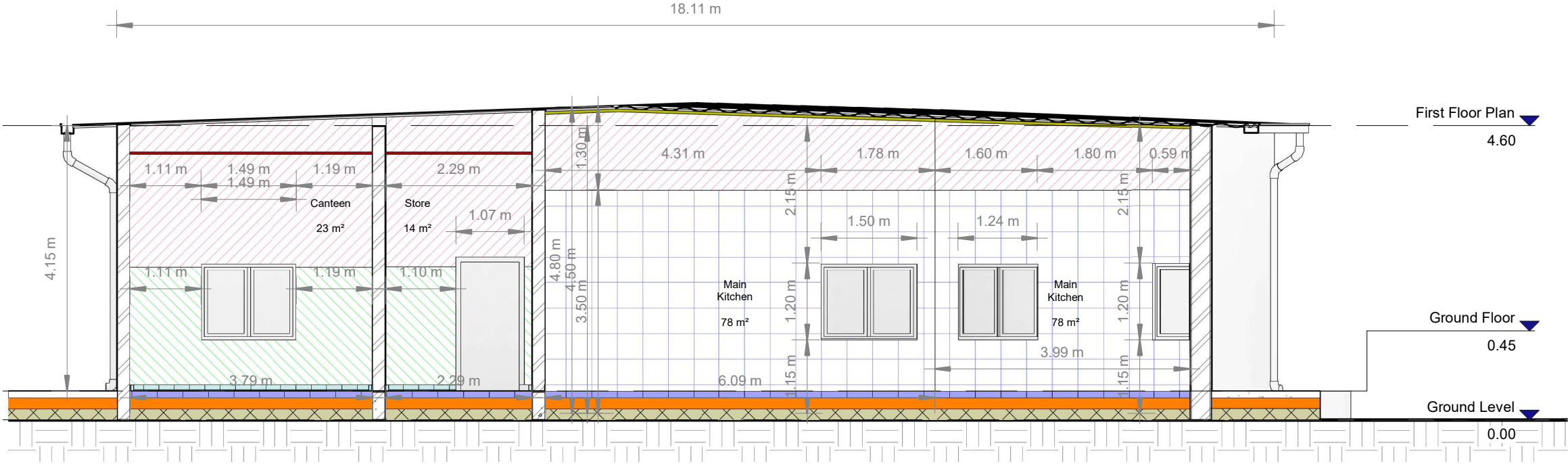
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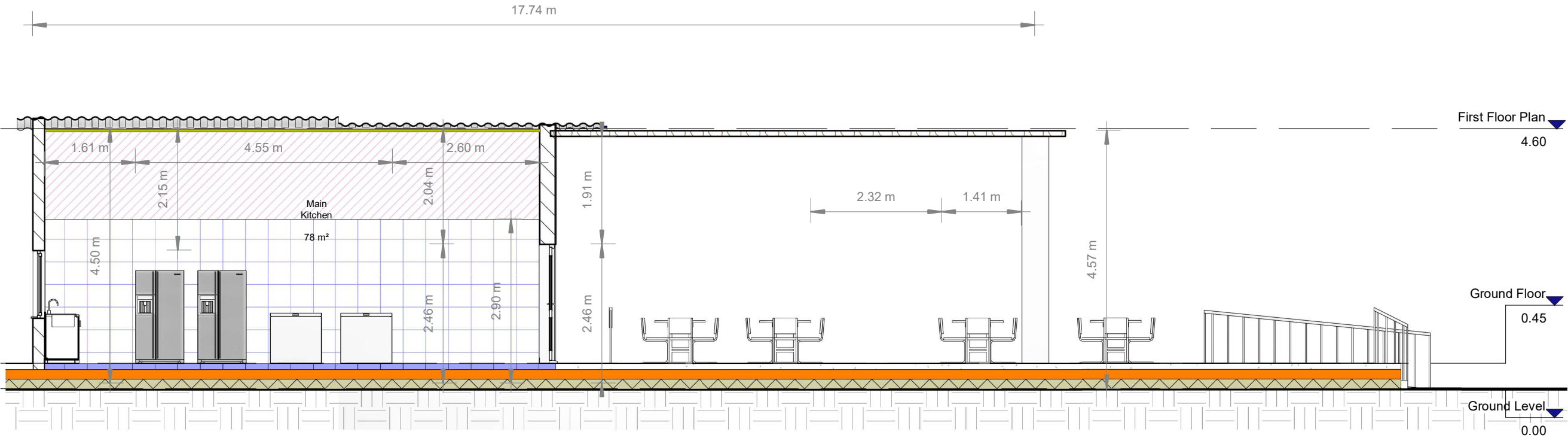
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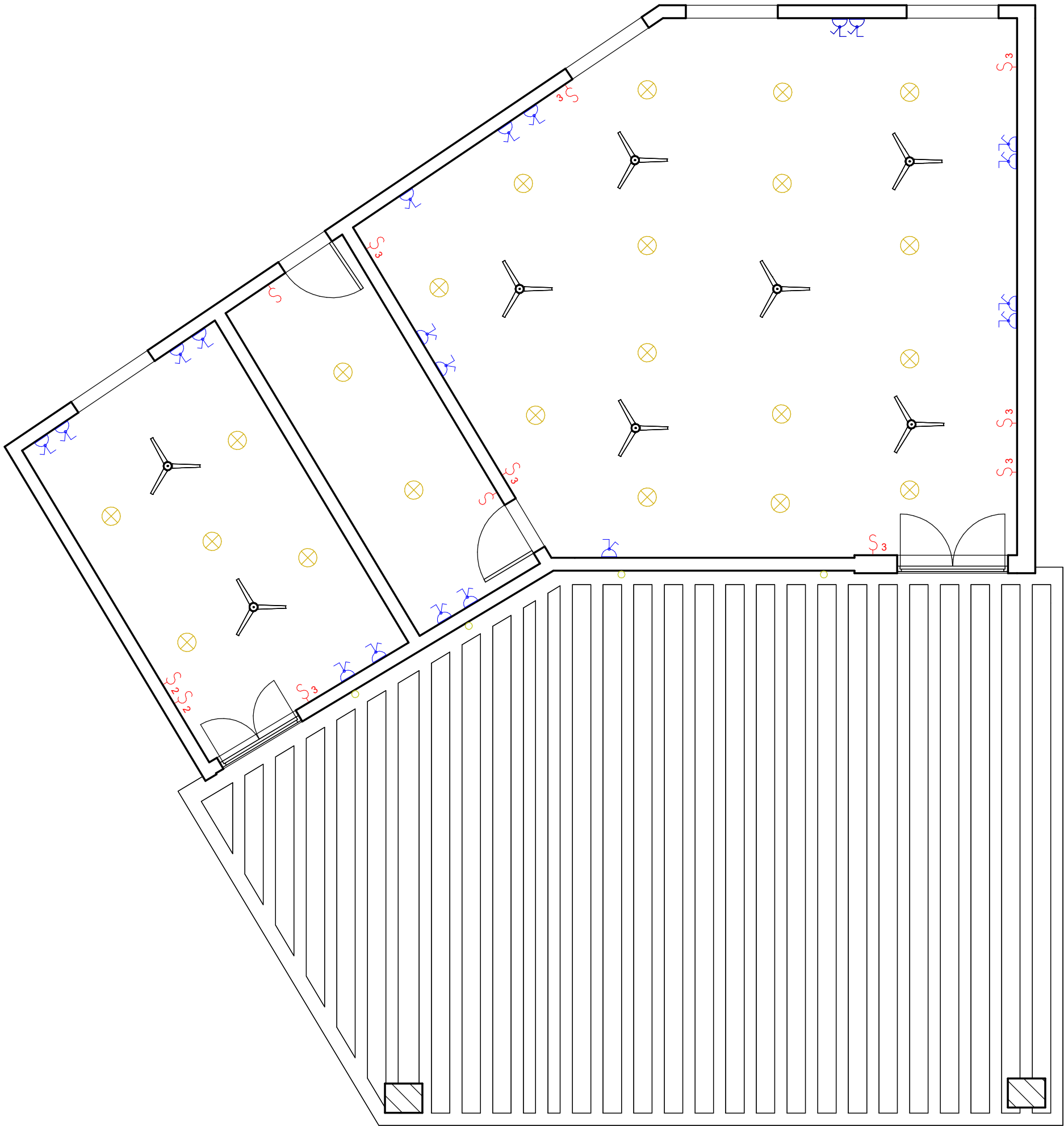
As indicated



1 Cafeteria Block Section-A
1 : 80



2 Cafeteria Block Section-B
1 : 80



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DOUBLE QTC ENGINEERING

SYMPOL	DESCRIPTION
Sup Distribution Board	
Main Distribution Board	
Fan	
Down Light	
Wall Light	
Single Switch	
Double Switch	
3-Way Switch	
Double Socket	
Exhaust Fan	

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR
STATE

STRUCTURAL

ENGINEER :

ENG.Rayan Ahmed

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING

TITLE :

Ground Floor Electrical Plan

DATE : Issue Date

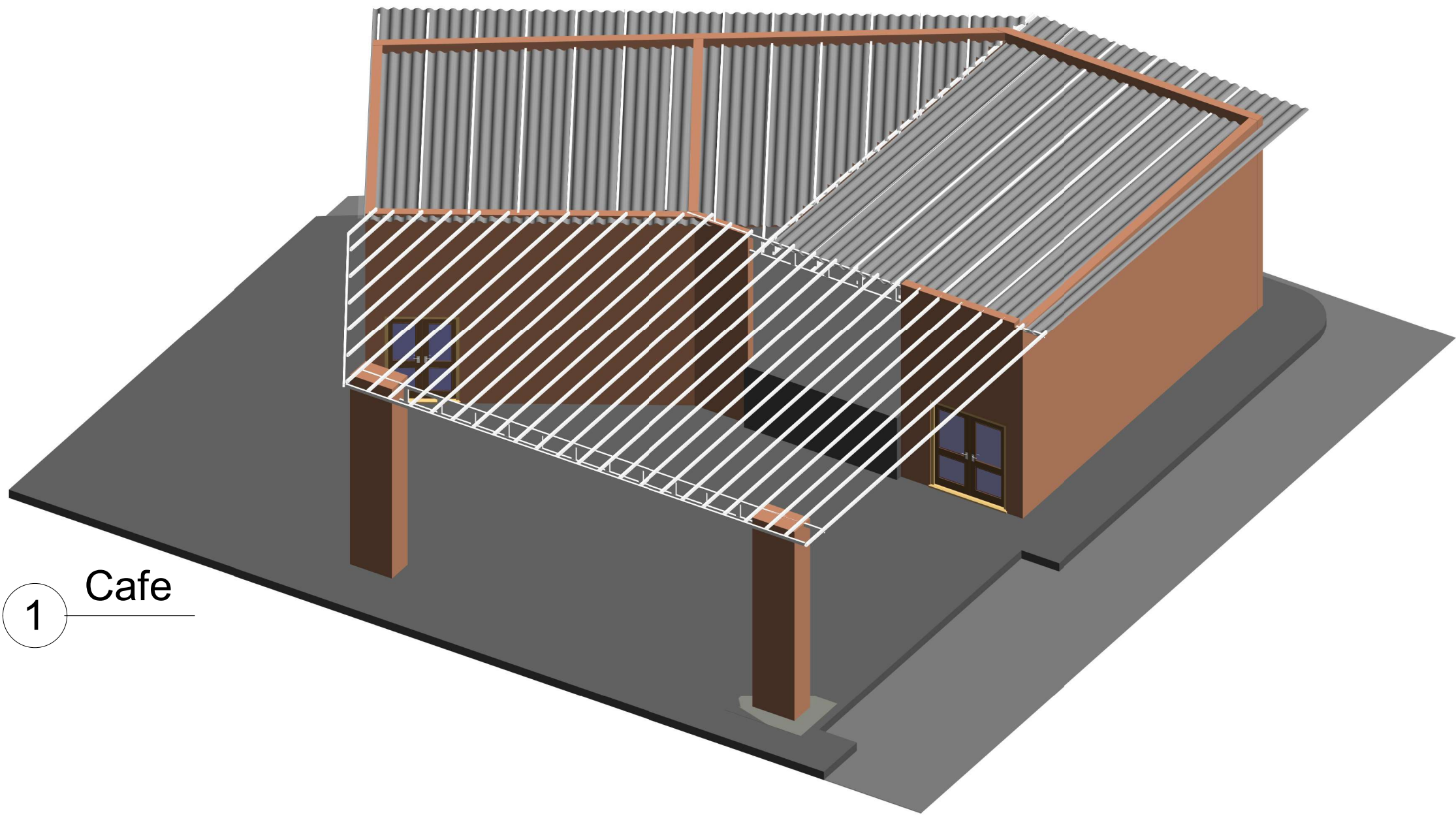
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ELE.103

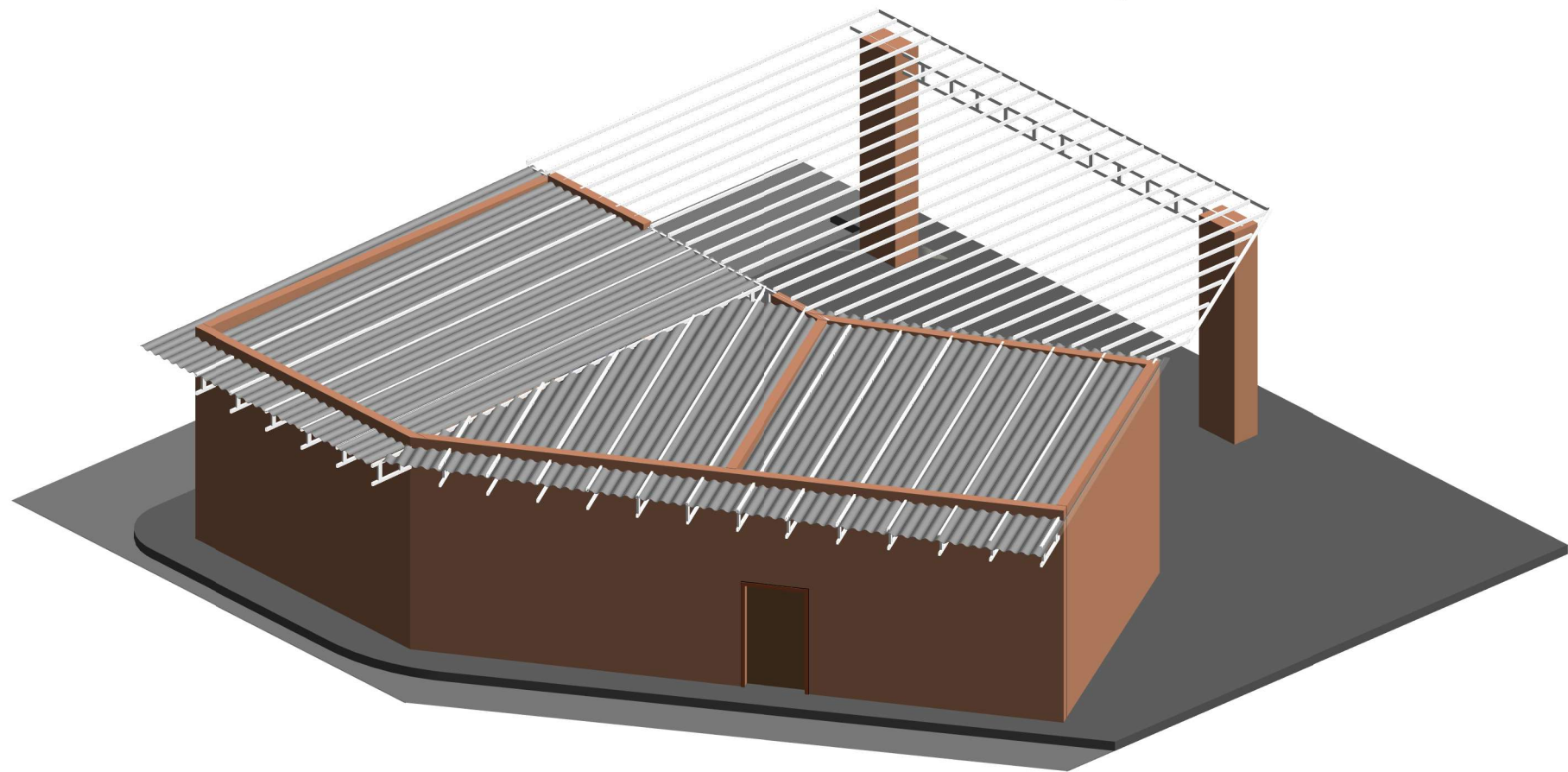
SCALE :

As
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1 Cafe



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EMAIL: DQTC.ENGINEERING@GMAIL.COM



PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER
(Cafeteria)

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.IBRAHIM MOHAMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

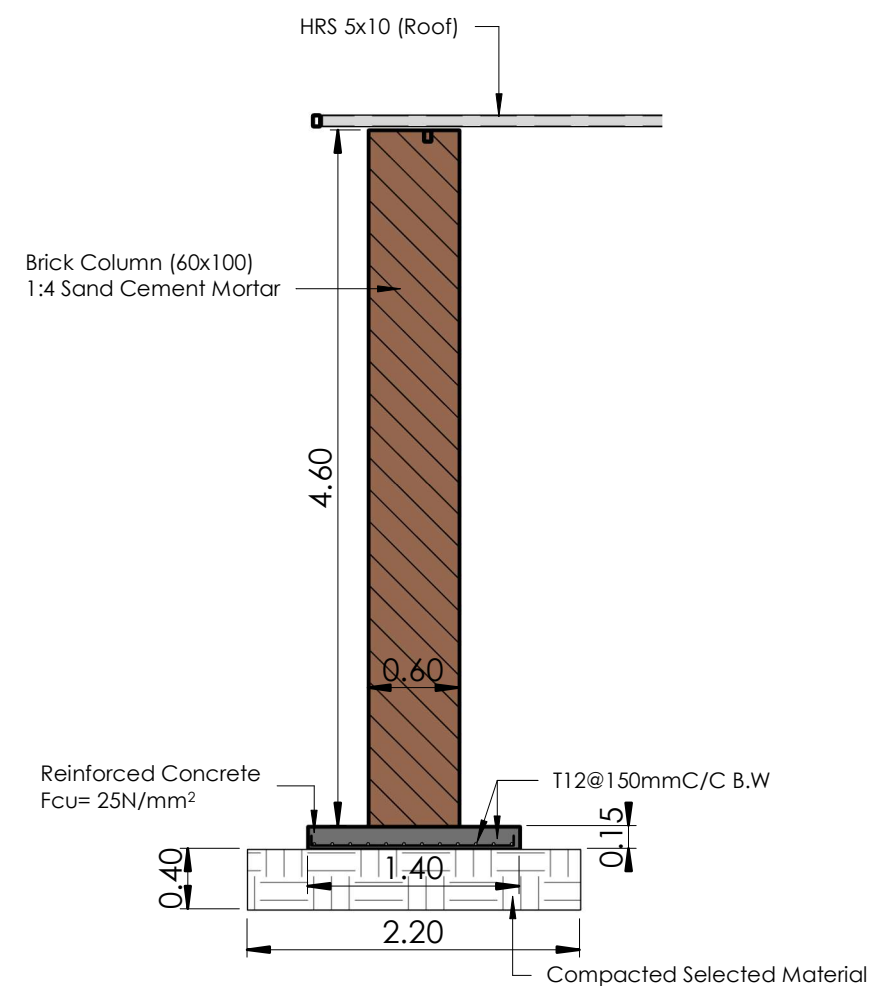
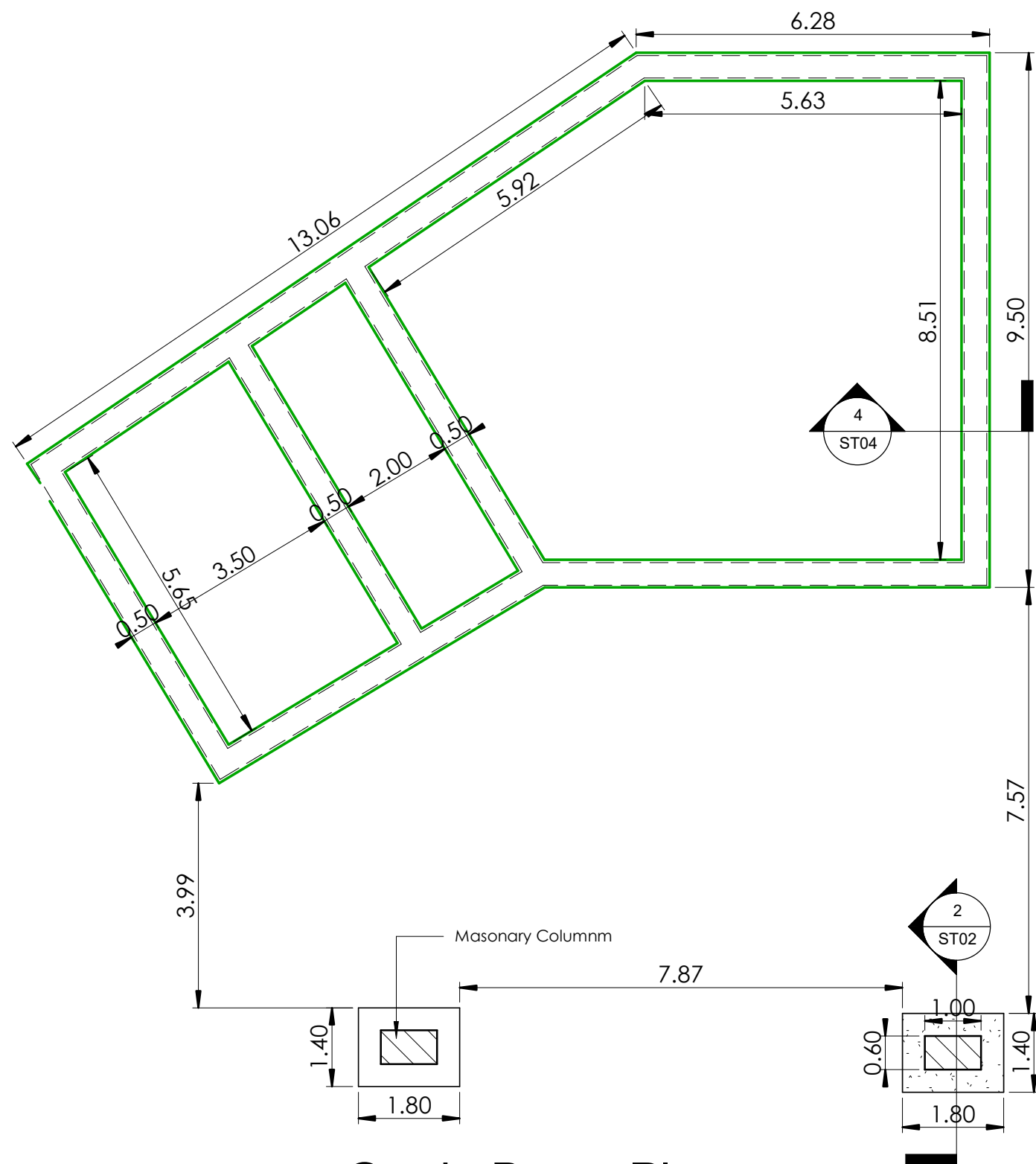
General 3D

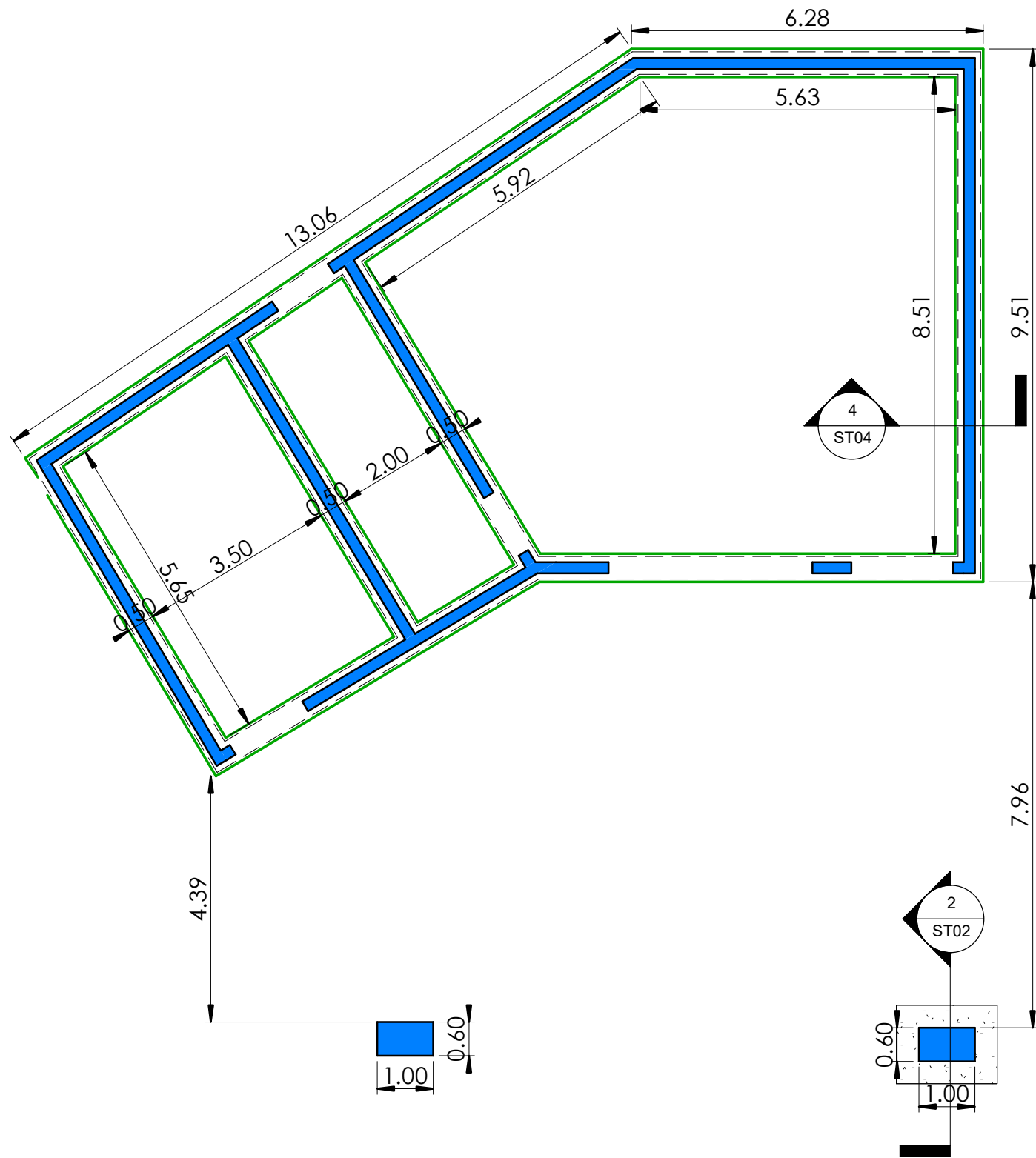
DATE: April - 2022

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ST01







1 Walls Plan
1 : 100





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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

Legend

	Grade Beam
	Strip Foundation Boundary
	Walls

PROGRAM TITLE :
T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :
DESIGN (AHS) IN AL FASHER (Cafeteria)


LOCATION :
AL FASHER, NORTH DARFUR STATE

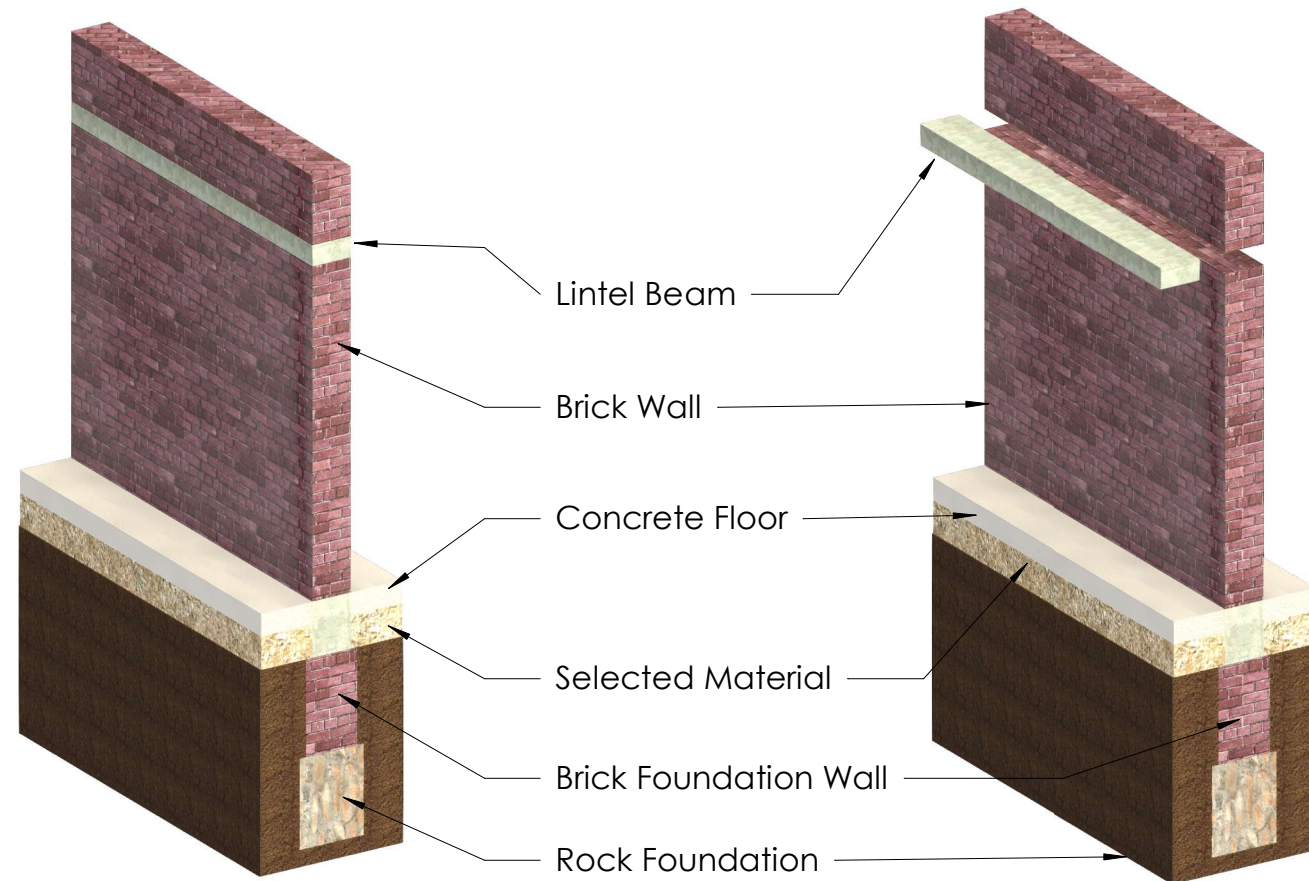
STRUCTURAL ENGINEER :
ENG. IBRAHIM MOHAMED IBRAHIM

CHECKED BY :
ENG. AMRAN MOHAMMED OTHMAN

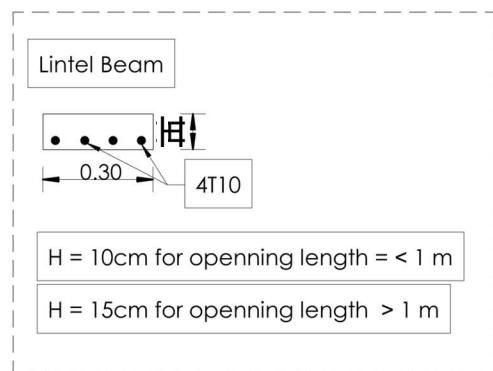
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Walls Plan

DATE : April - 2022

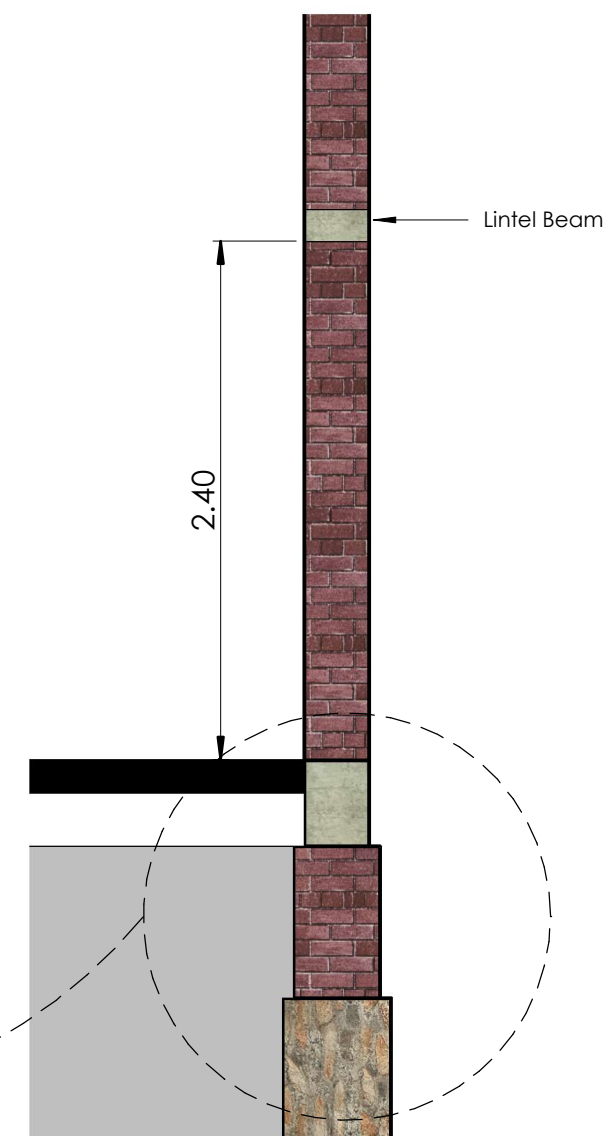
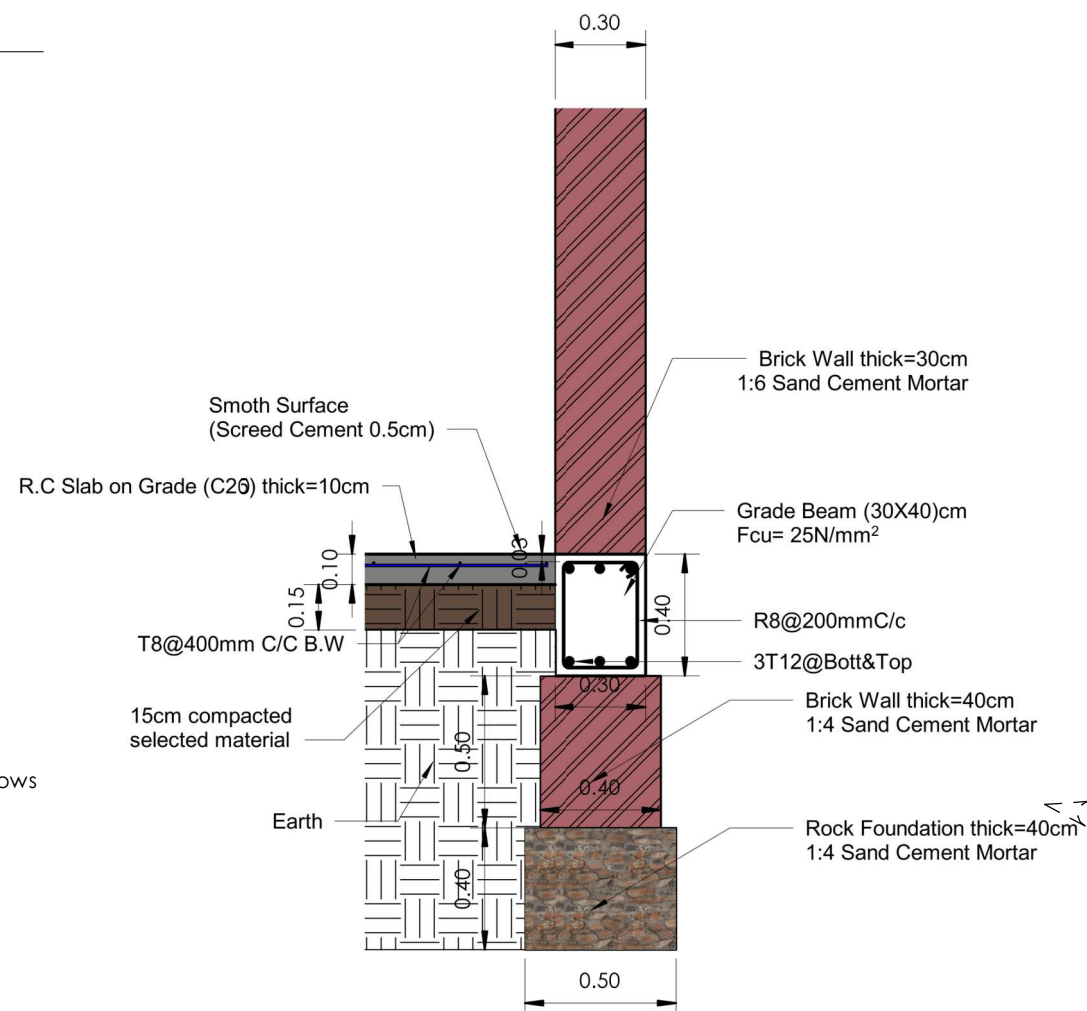
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3 3D Section

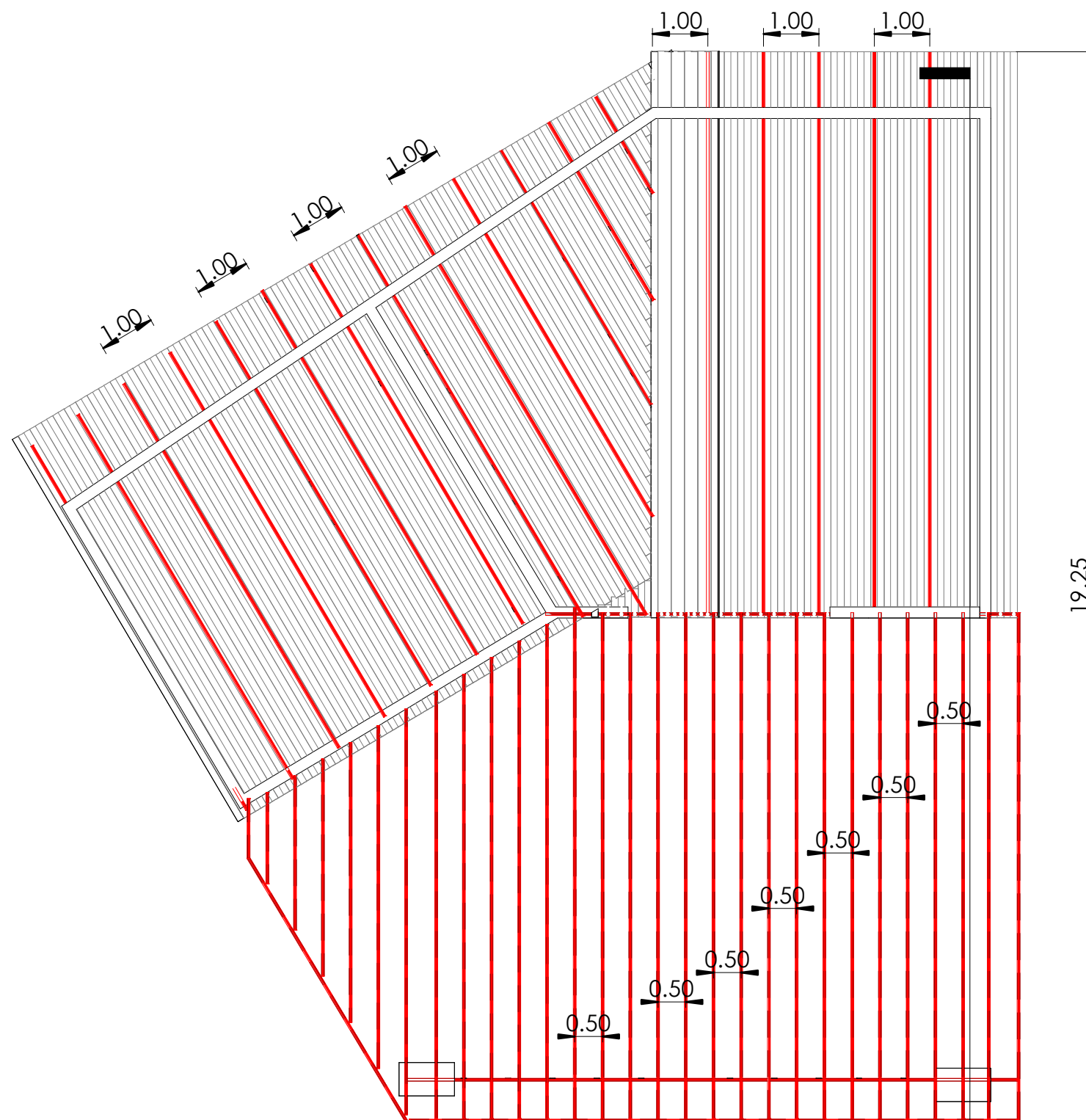


Note: the lintel beam location is only above doors and windows



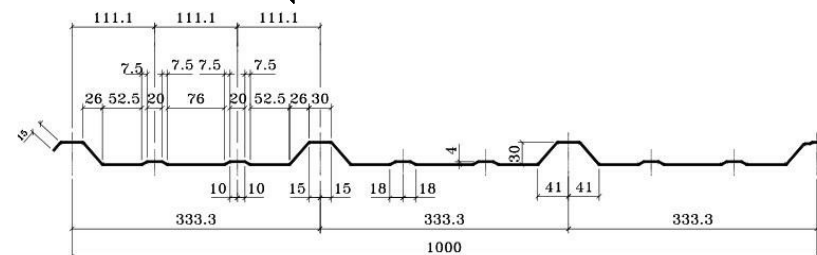
4 Section 12 1 : 100



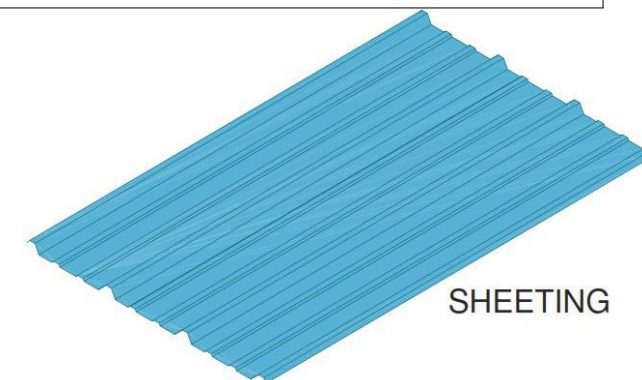


1 Roof (Corrugated Sheets)
1 : 100

1
ST07



Note :
All the Roof sheeting Panel Must be Grade 40



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EMAIL: DQTC.ENGINEERING@GMAIL.COM



Legend

H.R.S 5X10X0.2

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER
(Cafeteria)

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG. IBRAHIM MOHAMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Roof Structural Details

DATE : April - 2022

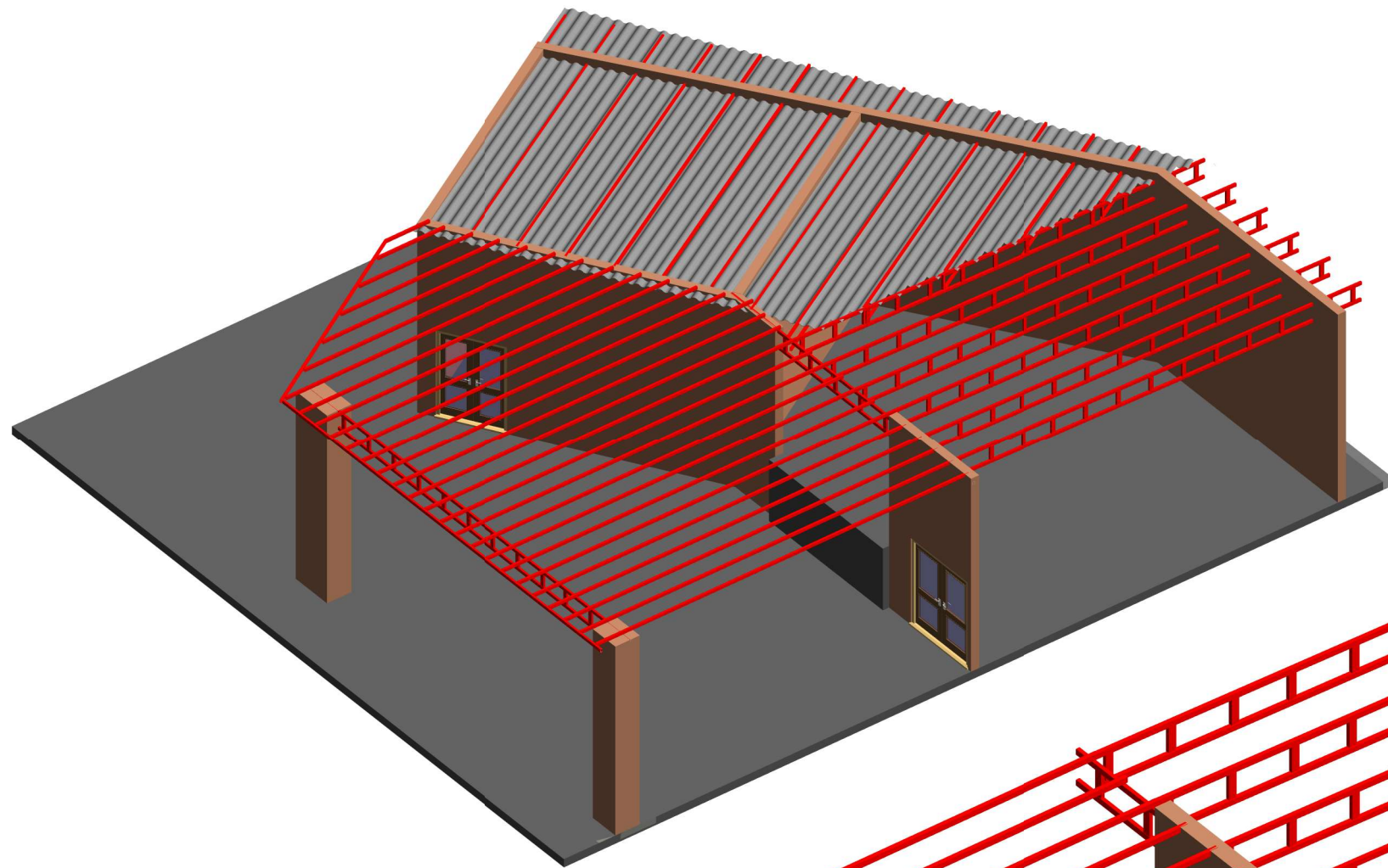
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ST05

SCALE :

As
indicated

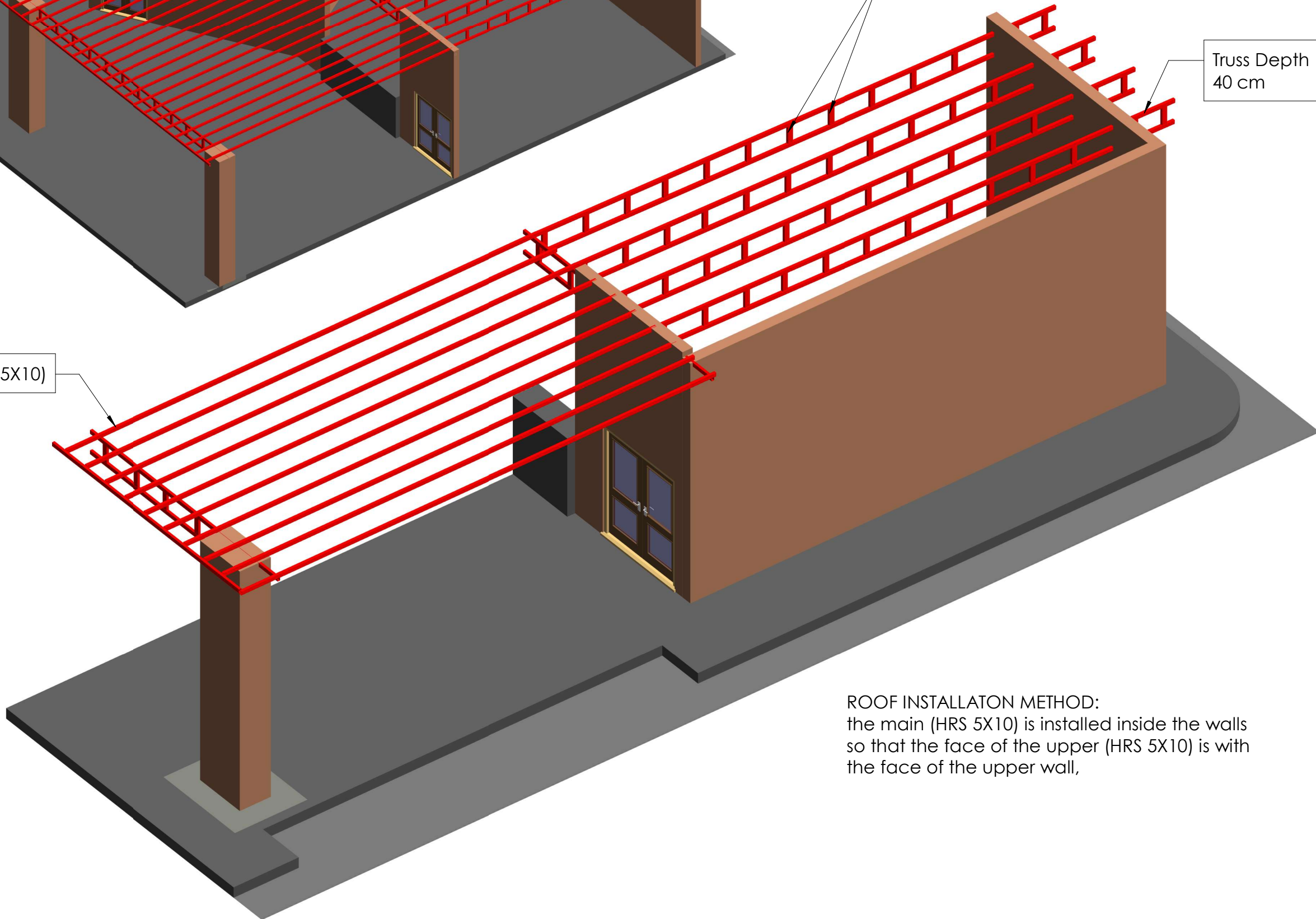




Main (HRS 5X10)

Truss vertical member (HRS 5X10) @ 80cm

Truss Depth
40 cm



ROOF INSTALLATON METHOD:
the main (HRS 5X10) is installed inside the walls
so that the face of the upper (HRS 5X10) is with
the face of the upper wall,



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PROGRAM TITLE :
T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :
DESIGN (AHS) IN AL FASHER
(Cafeteria)

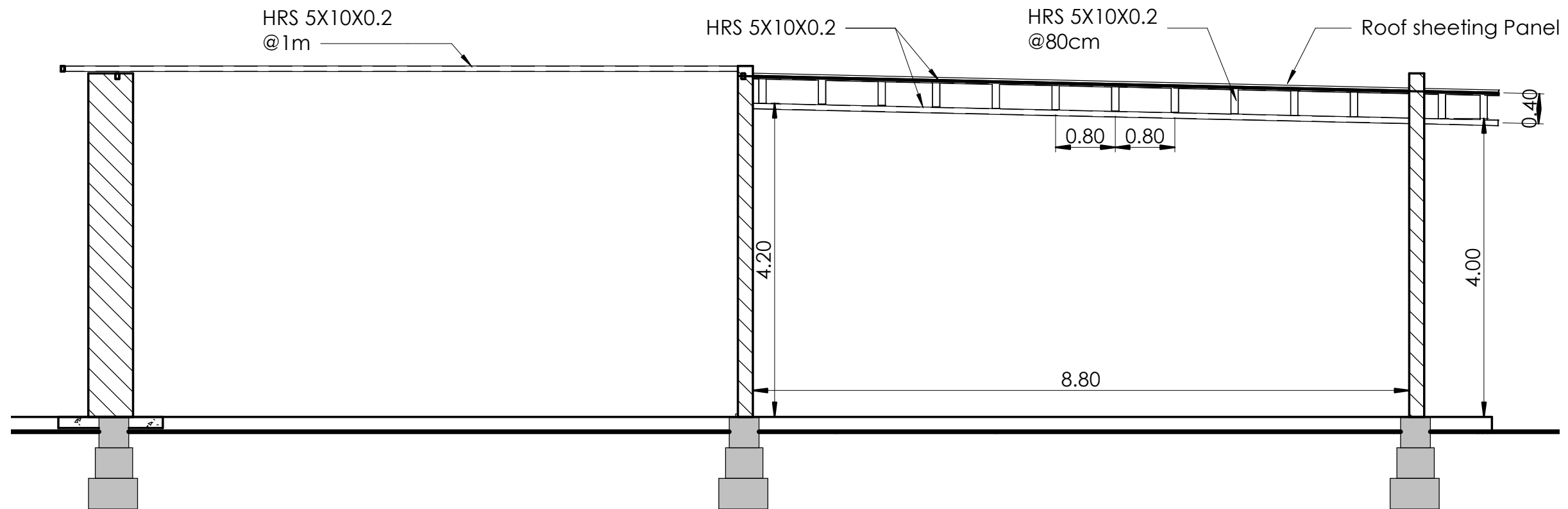
LOCATION :
AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :
ENG. IBRAHIM MOHAMED IBRAHIM
CHECKED BY :
ENG. AMRAN MOHAMMED OTHMAN

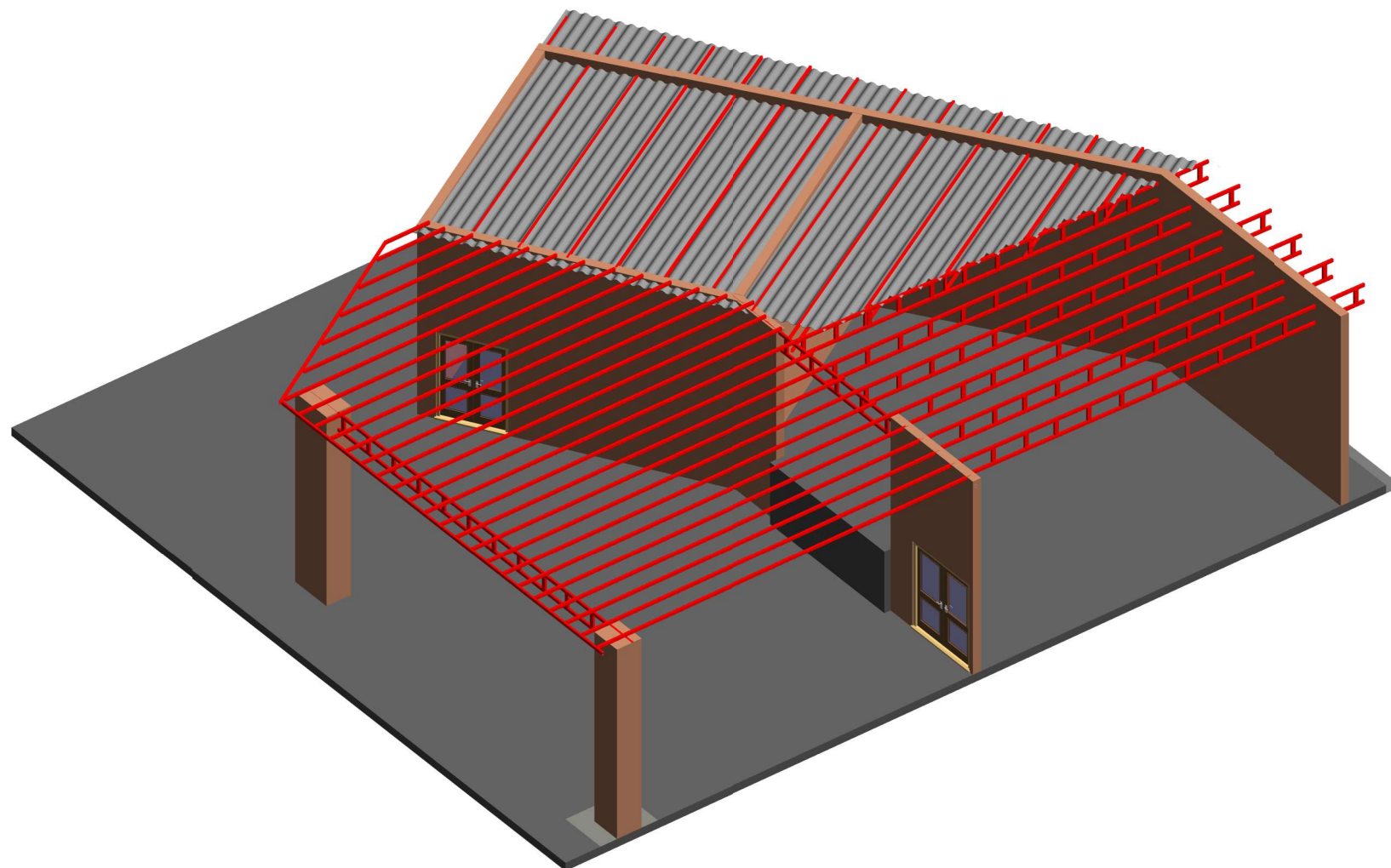
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Roof Installation Method

DATE : April - 2022

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1 Section 11
1 : 65






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AL-Amarat Mohamed Najeeb Street, Khartoum
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Legend	
	H.R.S 5X10X0.2

PROGRAM TITLE :
 T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :
 DESIGN (AHS) IN AL FASHER
 (Cafeteria)

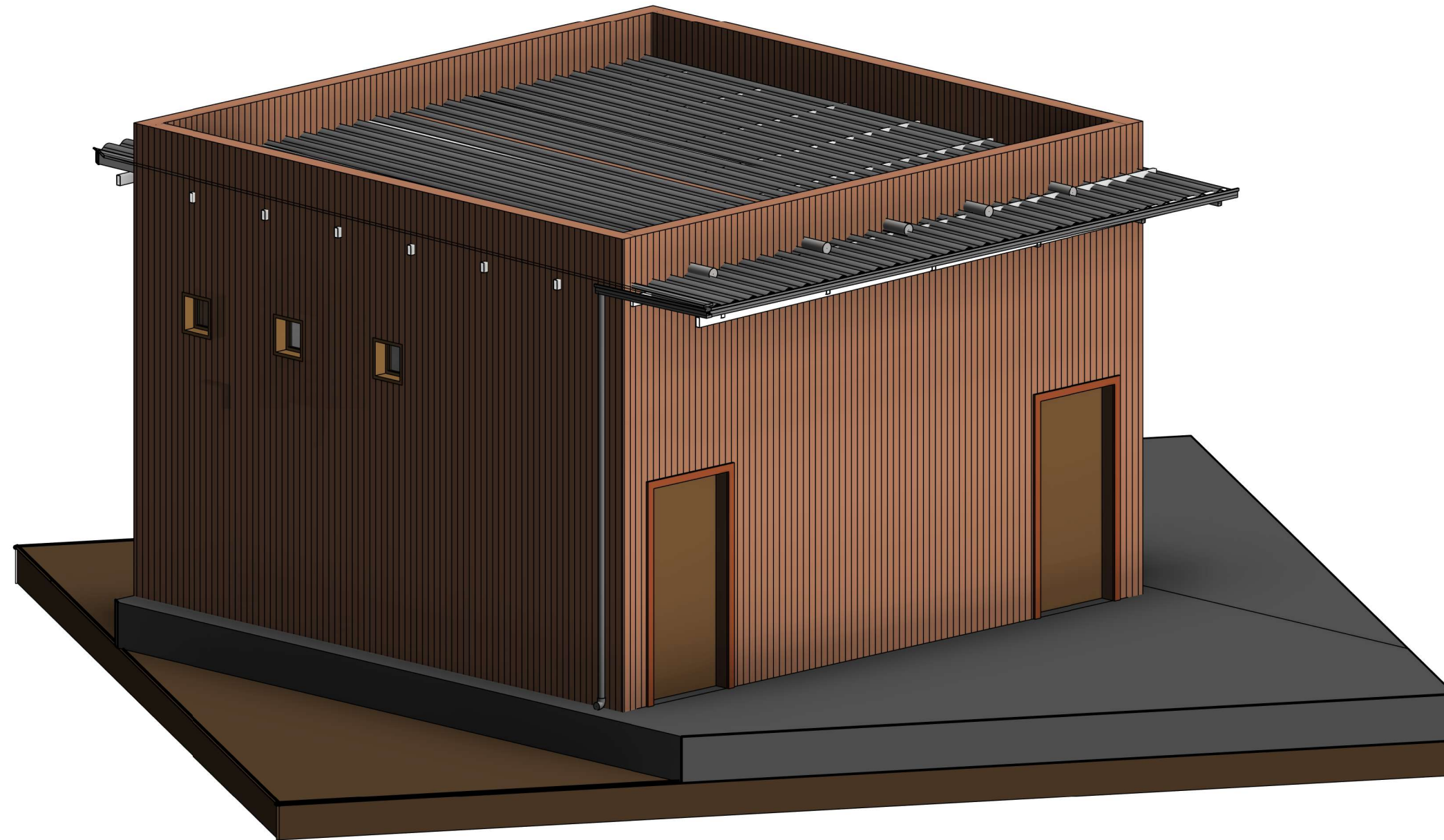
LOCATION :
 AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :
 ENG. IBRAHIM MOHAMED IBRAHIM
 CHECKED BY :
 ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :
 Section

DATE : April - 2022
 INDEX : ST07
 SCALE : As indicated



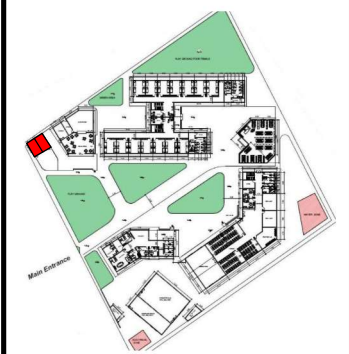


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PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Ayat Ali Ahmed Mahdi

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Cover Page

DATE: April - 2022

INDEX :

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SCALE :

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AR - 02	Elevations
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AR - 05	Roof plan
EL - 01	Electrical plan
ST - 01	GENERAL 3D
ST - 02	GRADE BEAM PLAN
ST - 03	Walls Plan
ST - 04	FOUNDATION SECTION & Details
ST - 05	ROOF REINFORCEMENT
ST - 06	Roof Installation Method



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PROGRAM TITLE :

[T05-EUTF-HOA-SDN-73-01](#)

PROJECT TITLE :

[DESIGN \(AHS\) IN AL FASHER,
NORTH DARFUR STATE](#)

LOCATION :

[AL FASHER, NORTH DARFUR STATE](#)

STRUCTURAL ENGINEER :

[ENG.Ayat Ali Ahmed Mahdi](#)

CHECKED BY :

[ENG. AMRAN MOHAMMED OTHMAN](#)

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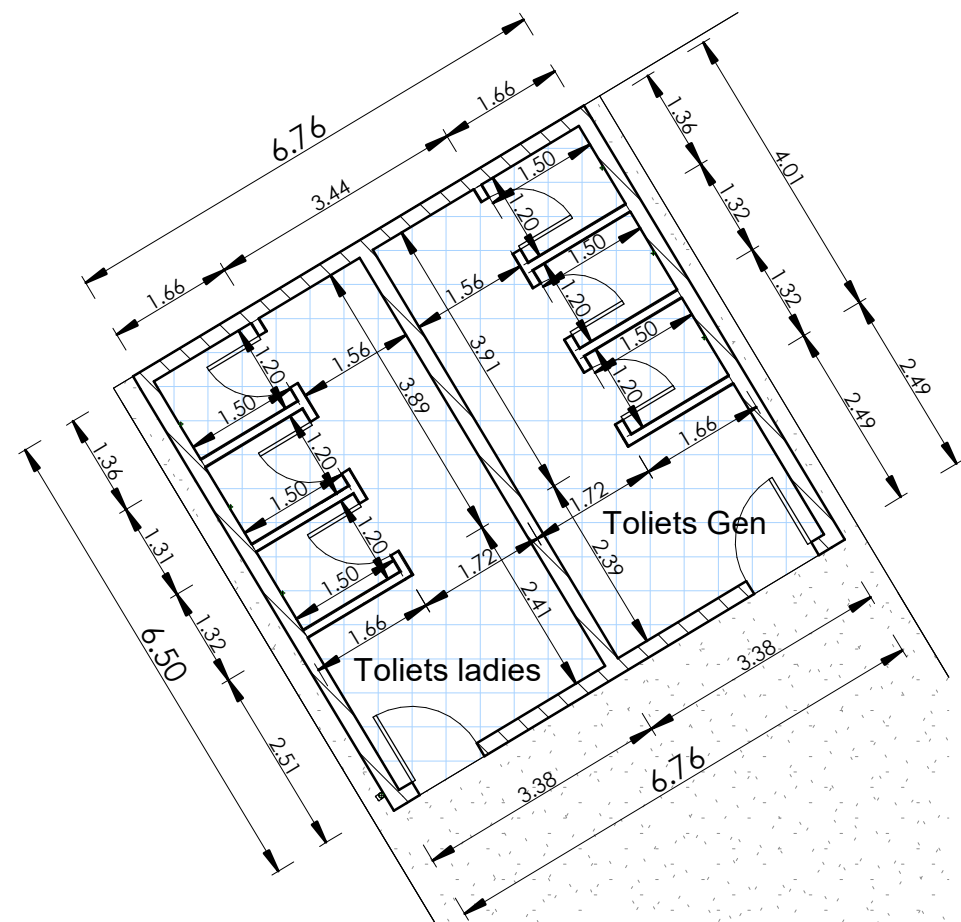
[Sheet List](#)

DATE: [April - 2022](#)

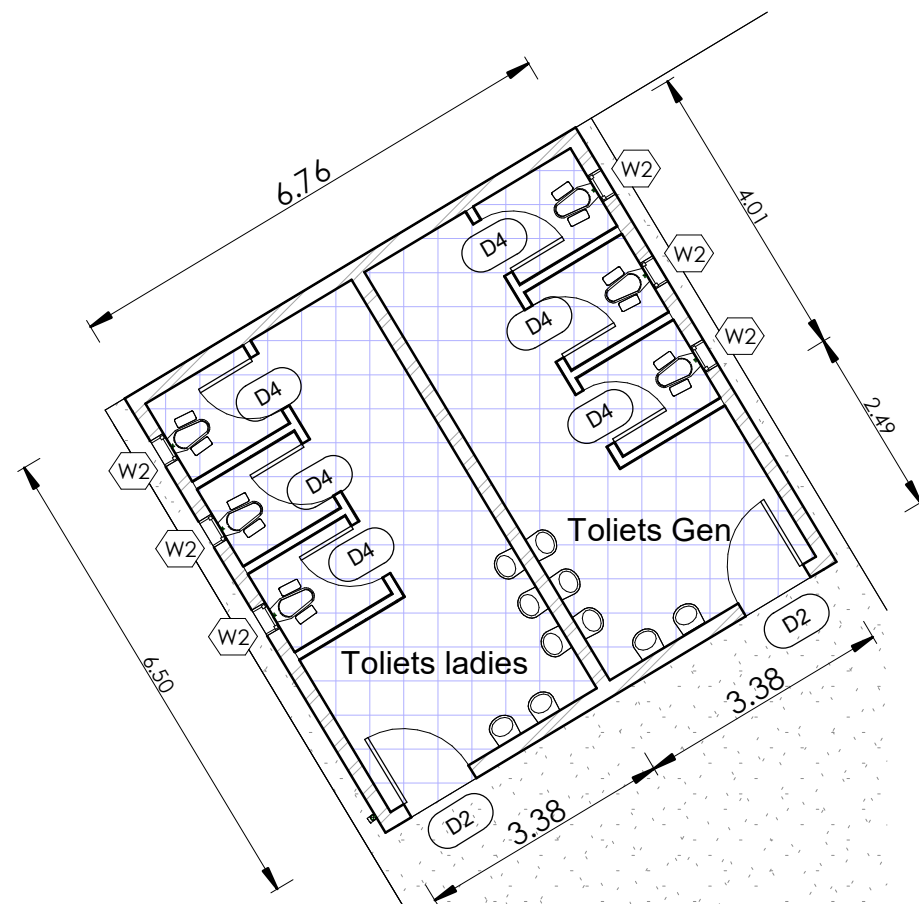
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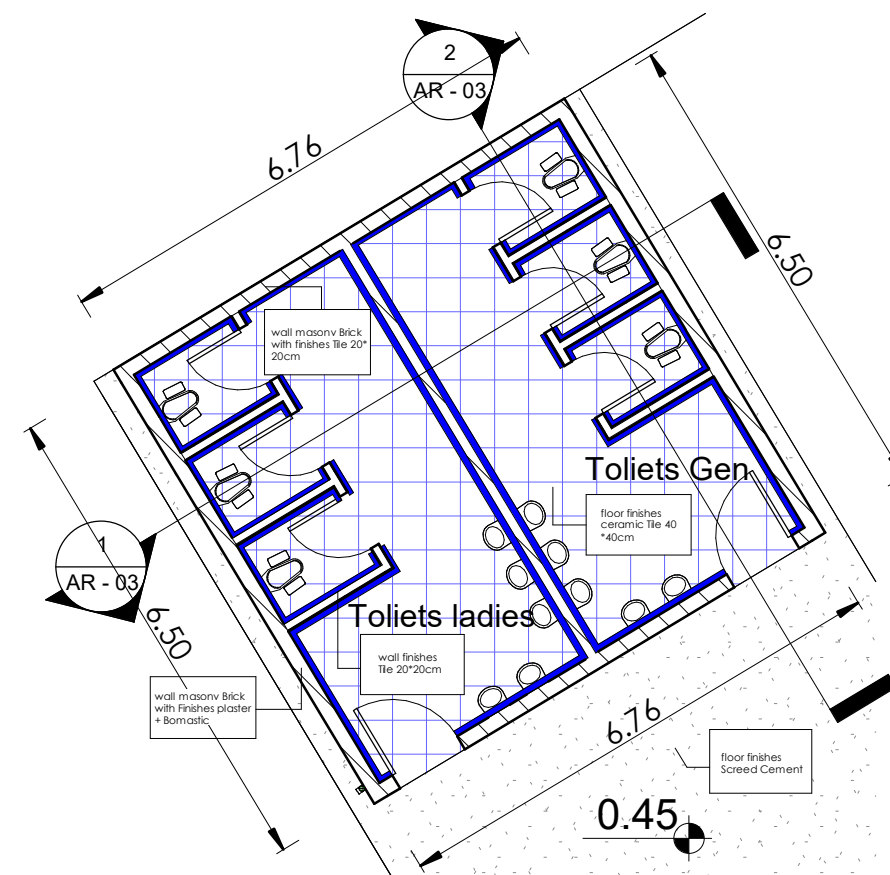




1 Dimensions and Furniture Plan
1 : 100



3 Door & windows Details
1 : 100



2 Finishing Plan
1 : 100

DOORS LEGNED :

No.	Item	Hieght	Width	PLAN	ELEVATION
2	D2	2.10m	1.00m		
6	D4	2.10m	0.80m		

WINDOWS LEGNED :

No.	Item	Hieght	Width	PLAN	ELEVATION
6	W2	0.40m	0.40m		



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AL-Amarat Mohamed Najeeb Street, Khartoum

TEL: +249925451234
+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING



MATERIAL Legend:	
	Internal flooring(+0.45)with ceramic tiles (40x40cm)
	Screed cement finishing
	wall ceramic tiles (20x20cm)
	Down Pipe

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Ayat Ali Ahmed Mahdi

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Ground Floor Plan

DATE: April - 2022

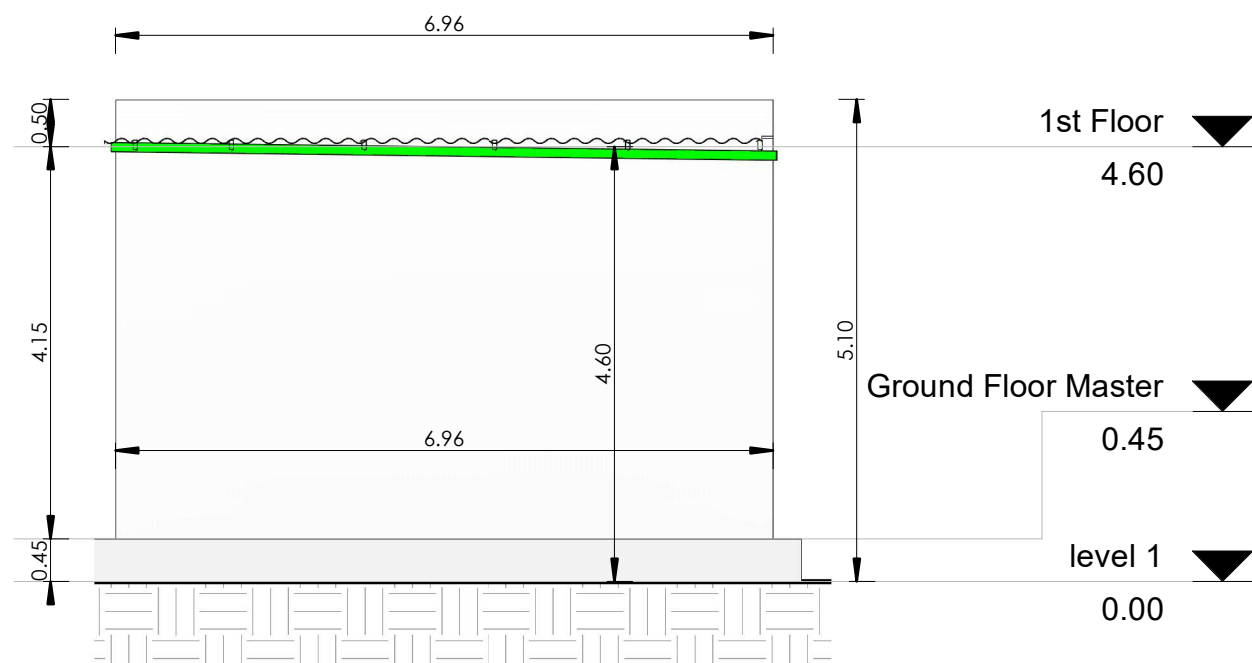
INDEX:

AR - 01

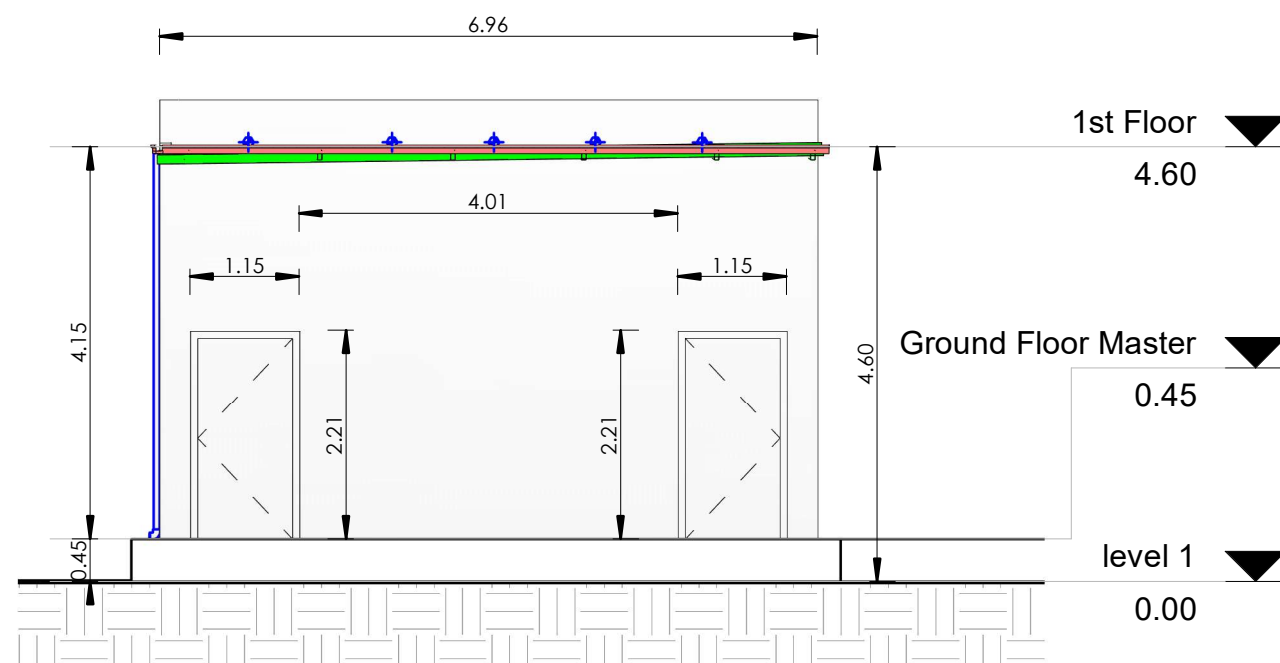
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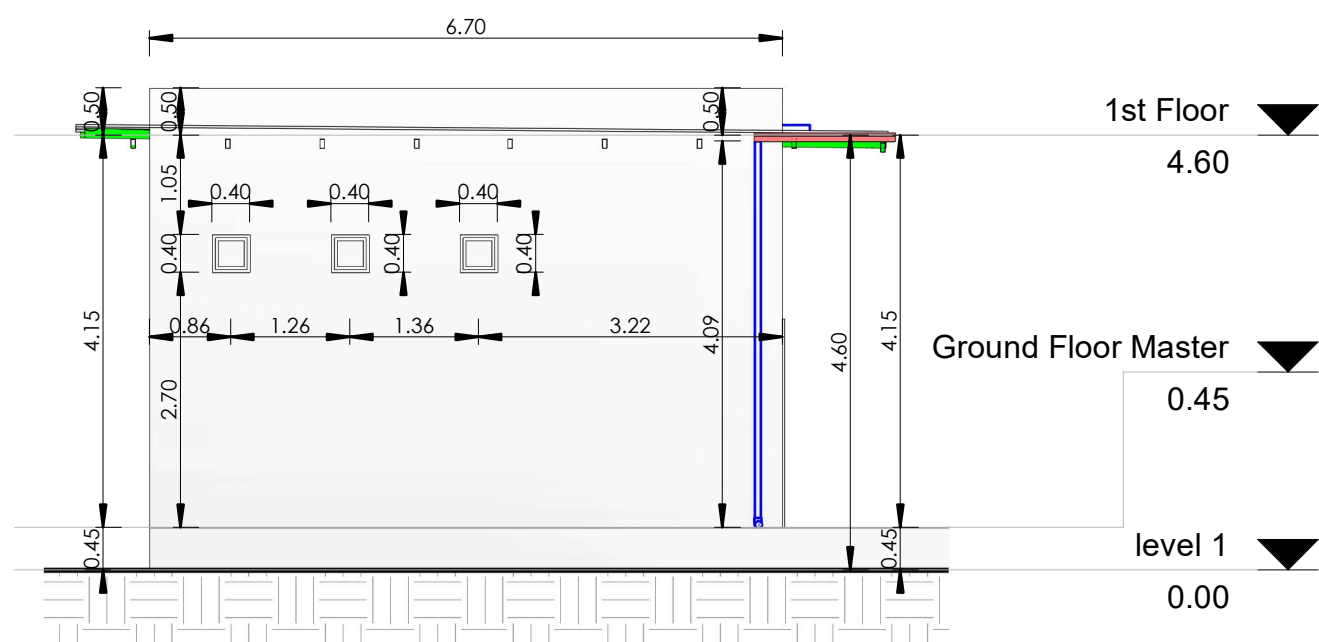




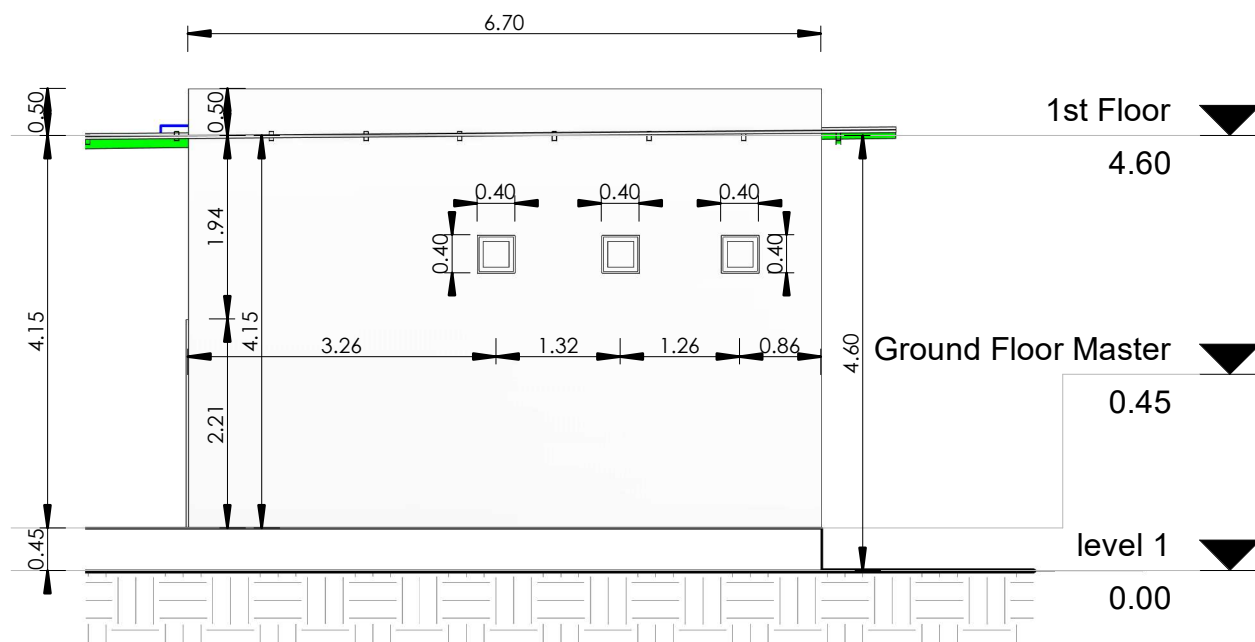
4 North Elevation
1 : 80



1 South Elevation
1 : 80



2 West Elevation
1 : 80



3 East Elevation
1 : 80



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DOUBLE QTC ENGINEERING

Legend:

	Galvanized Gutter
	Down Pipe
	RHS 5X10 Steel Section

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG. Ayat Ali Ahmed Mahdi

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Elevations

DATE: April - 2022

INDEX :

AR - 02

SCALE :

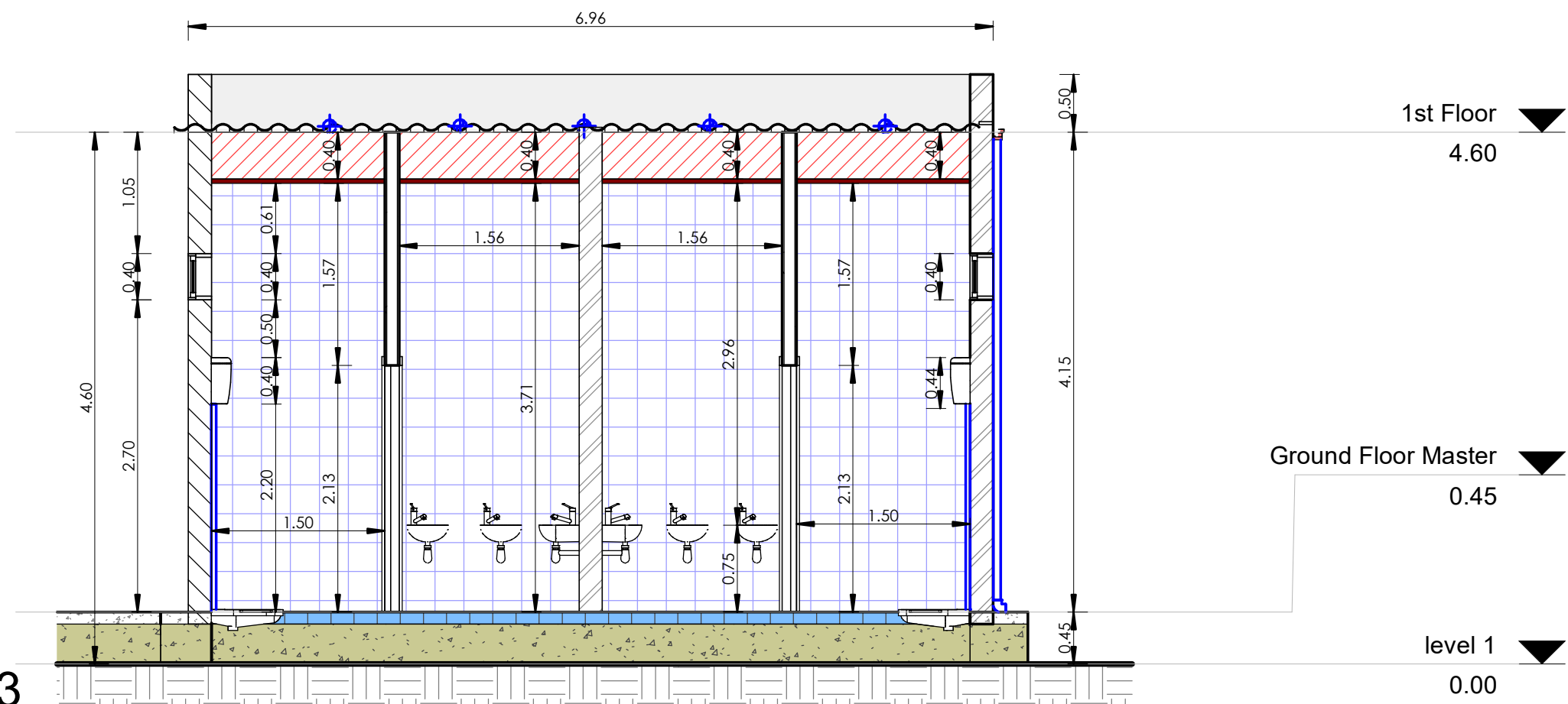
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1

Section 13

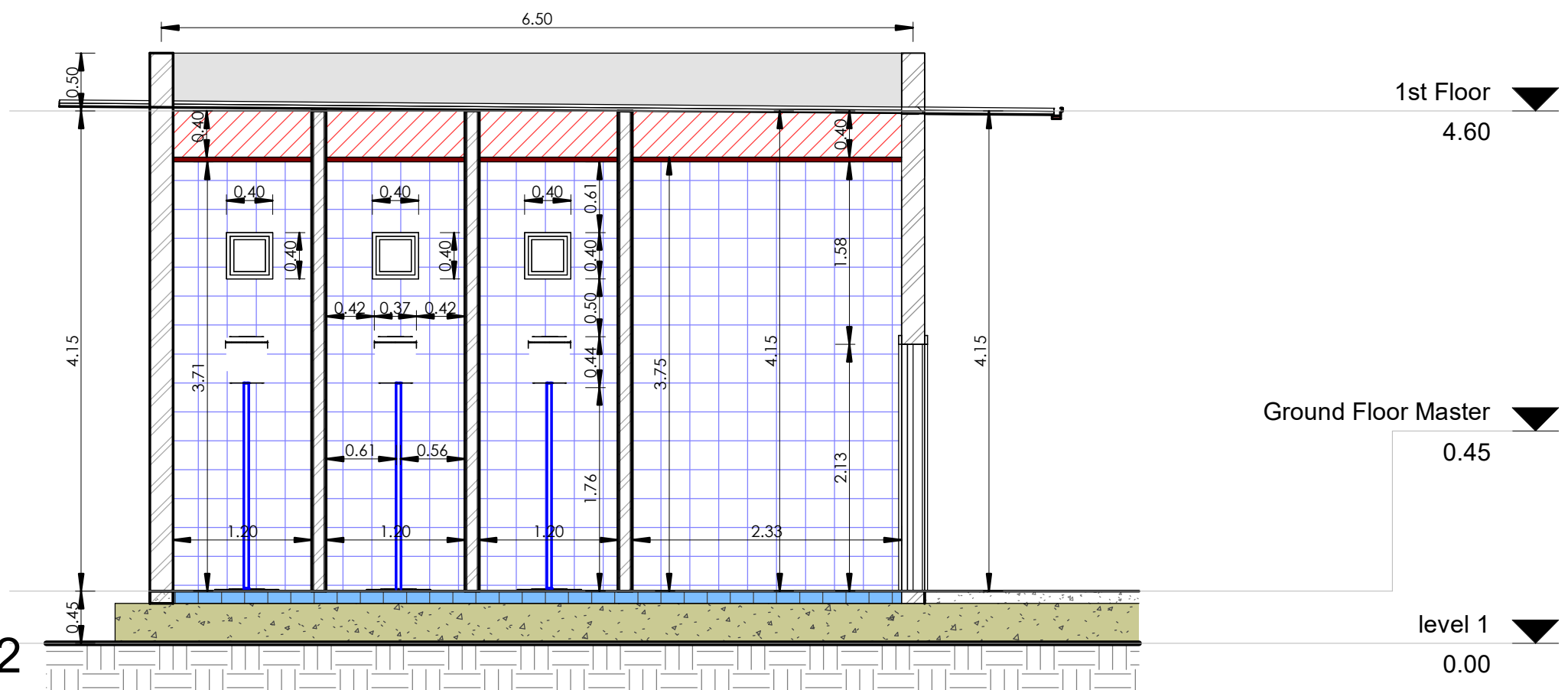
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2

Section 12

1 : 50



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DOUBLE QTC ENGINEERING

Material Legend:

	Wall Tiles 15X15
	Emulsion paint (internal) from 1.70m up to ceiling
	Skirting Tiles 40X10
	Screed Concrete
	Floor Tiles 40X40
	Compacted Soil
	False Ceiling
	Down Pipe

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Section

DATE: April - 2022

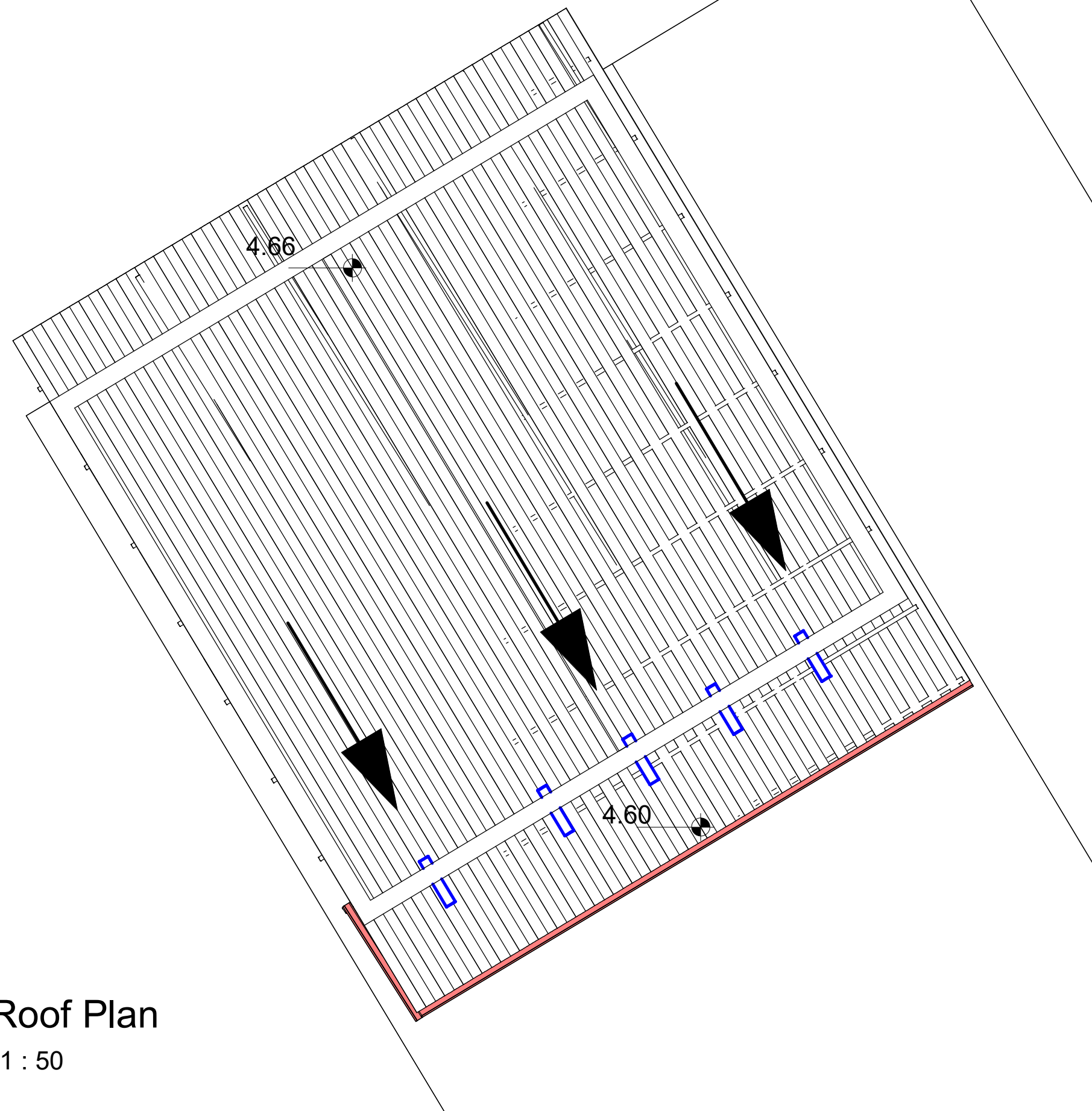
INDEX:

AR - 03

SCALE:

As indicated





1 Roof Plan
1 : 50



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+249115418666

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DOUBLE QTC ENGINEERING



Legend:

	Galvanized Gutter
	Down Pipe

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Roof plan

DATE: April - 2022

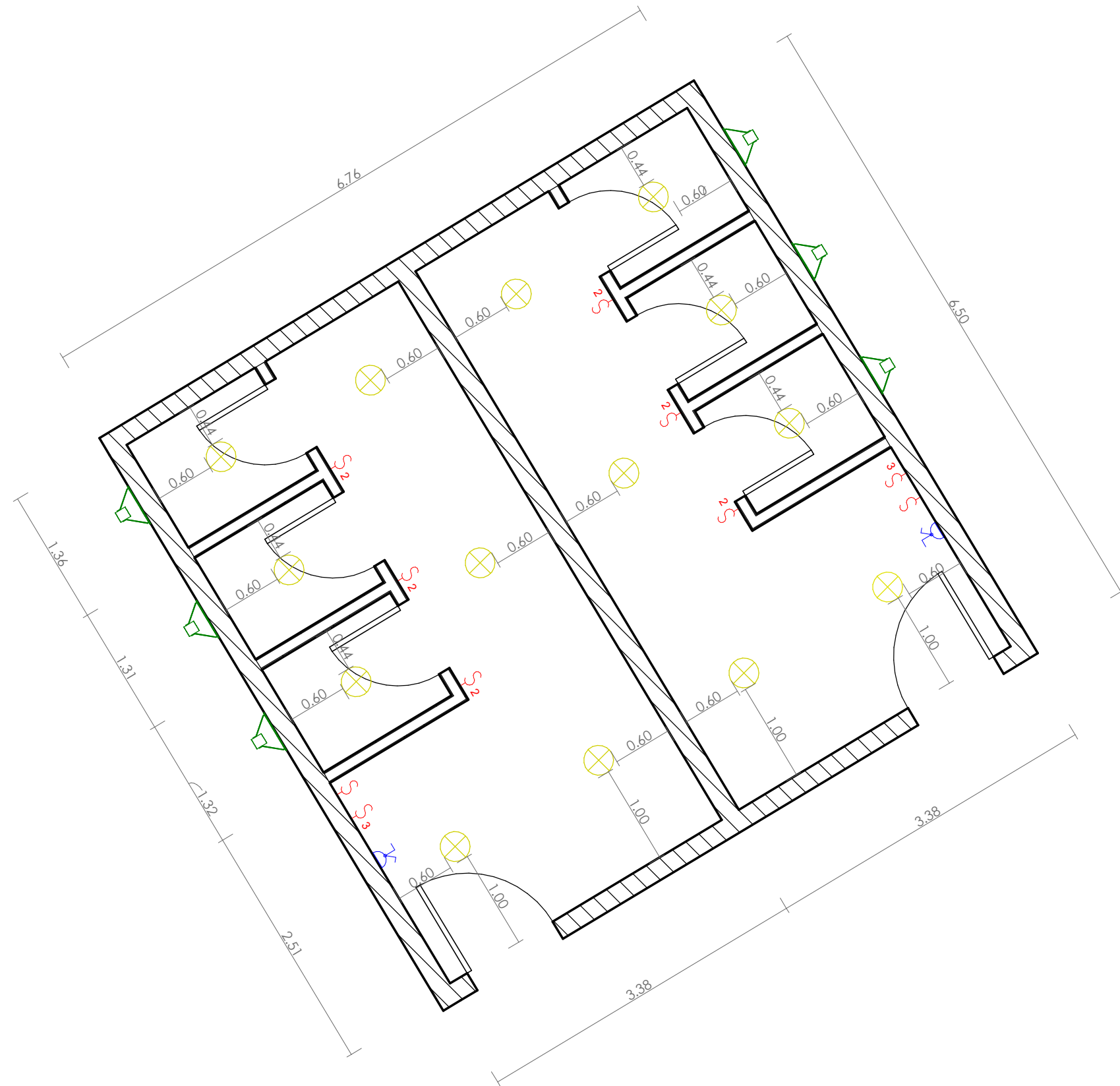
INDEX :

AR - 05

SCALE :

1 : 50





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DOUBLE QTC ENGINEERING



Legend

Down Light	
Single Switch	
Double Switch	
3-way Switch	
Single Socket	
Exhaust Fan	

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Ayat Ali Ahmed Mahdi

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Electricity Details

DATE: April - 2022

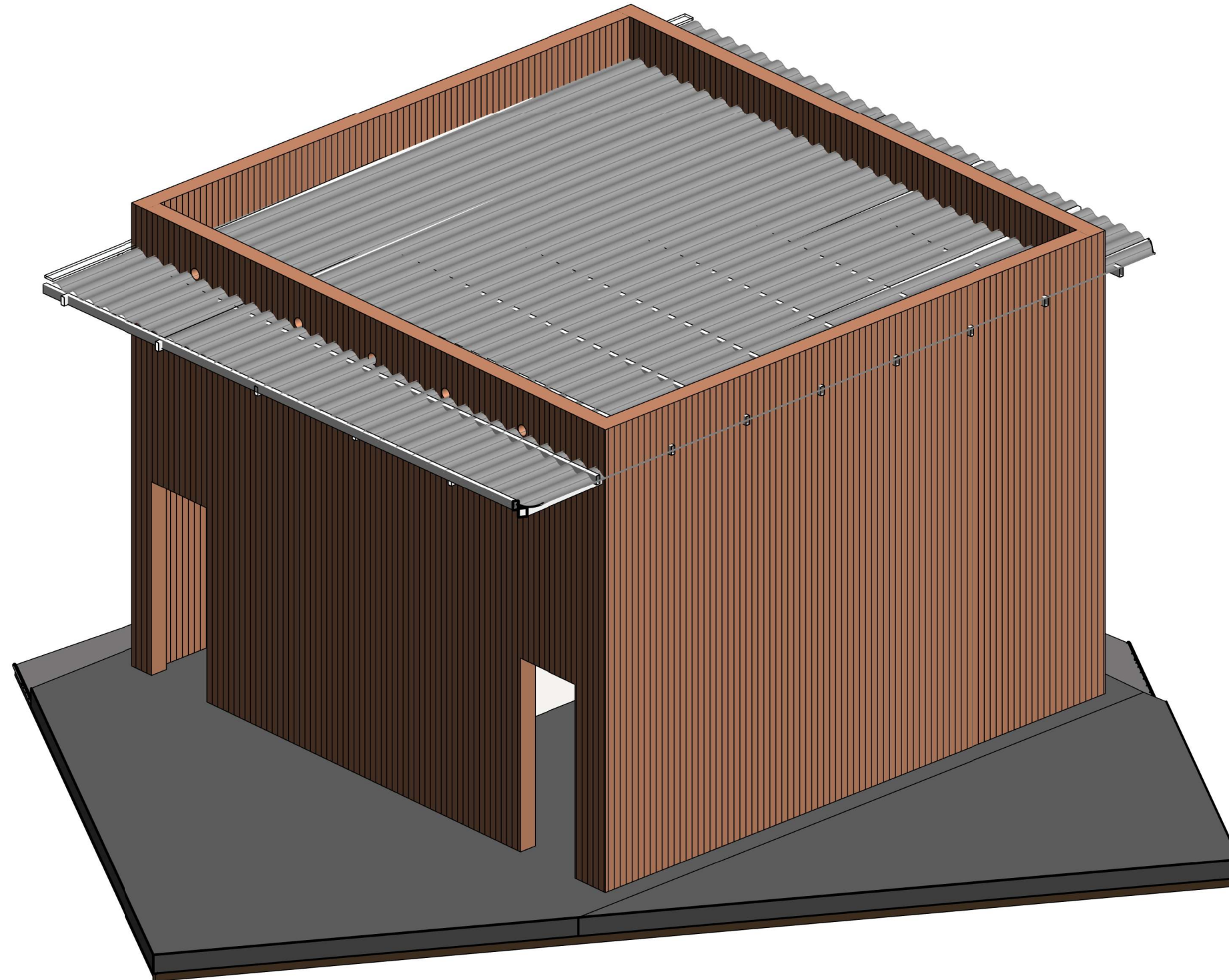
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EL - 01

SCALE :

As
indicated





1 BATH ROOM



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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.IBRAHIM MOHAMMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

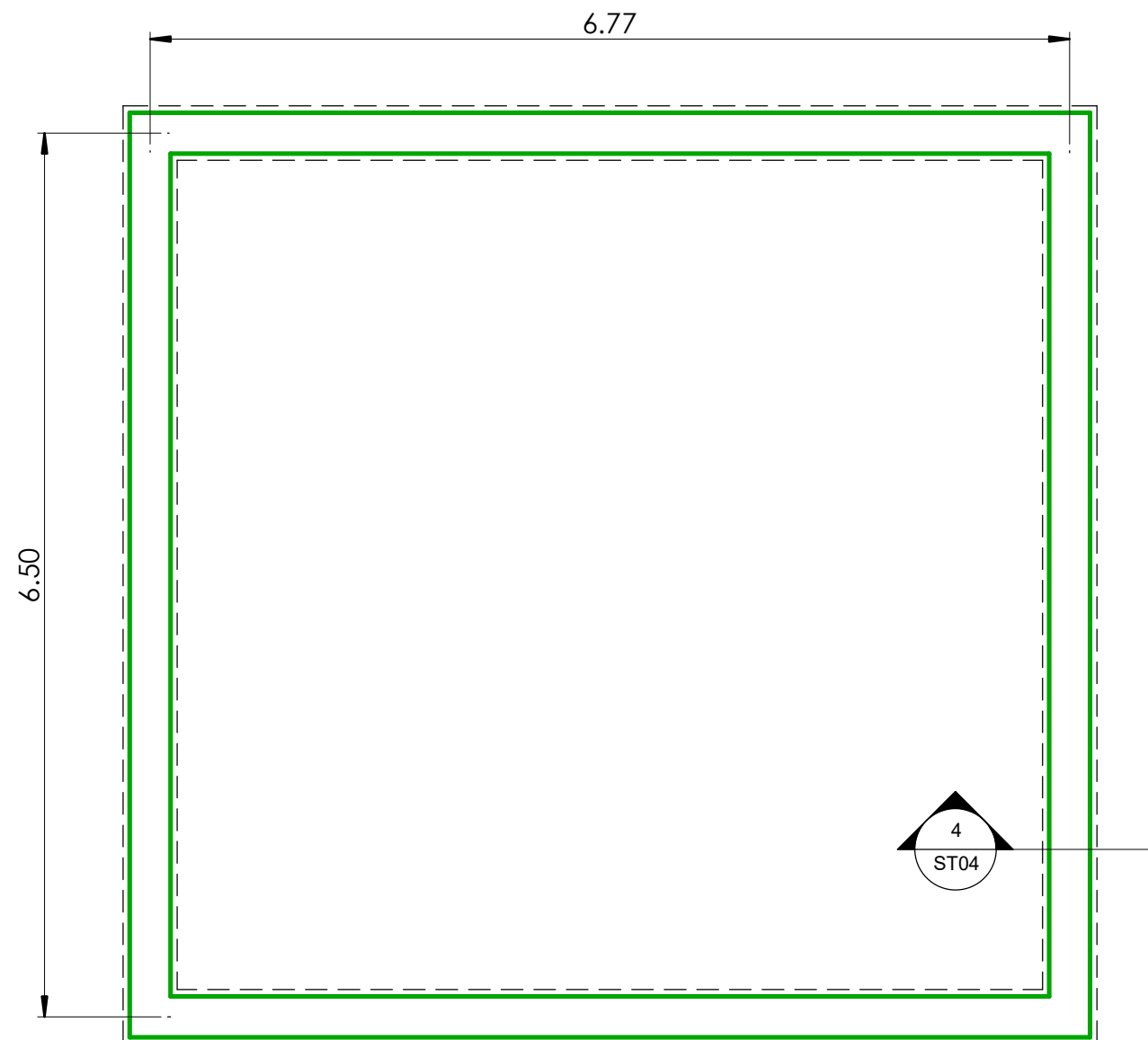
GENERAL 3D

DATE: April - 2022

INDEX: SCALE:

ST01





1 Grade Beam Plan.
1 : 50



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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

Legend	
	Grade Beam
	Strip Foundation Boundary

PROGRAM TITLE :
T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :
DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

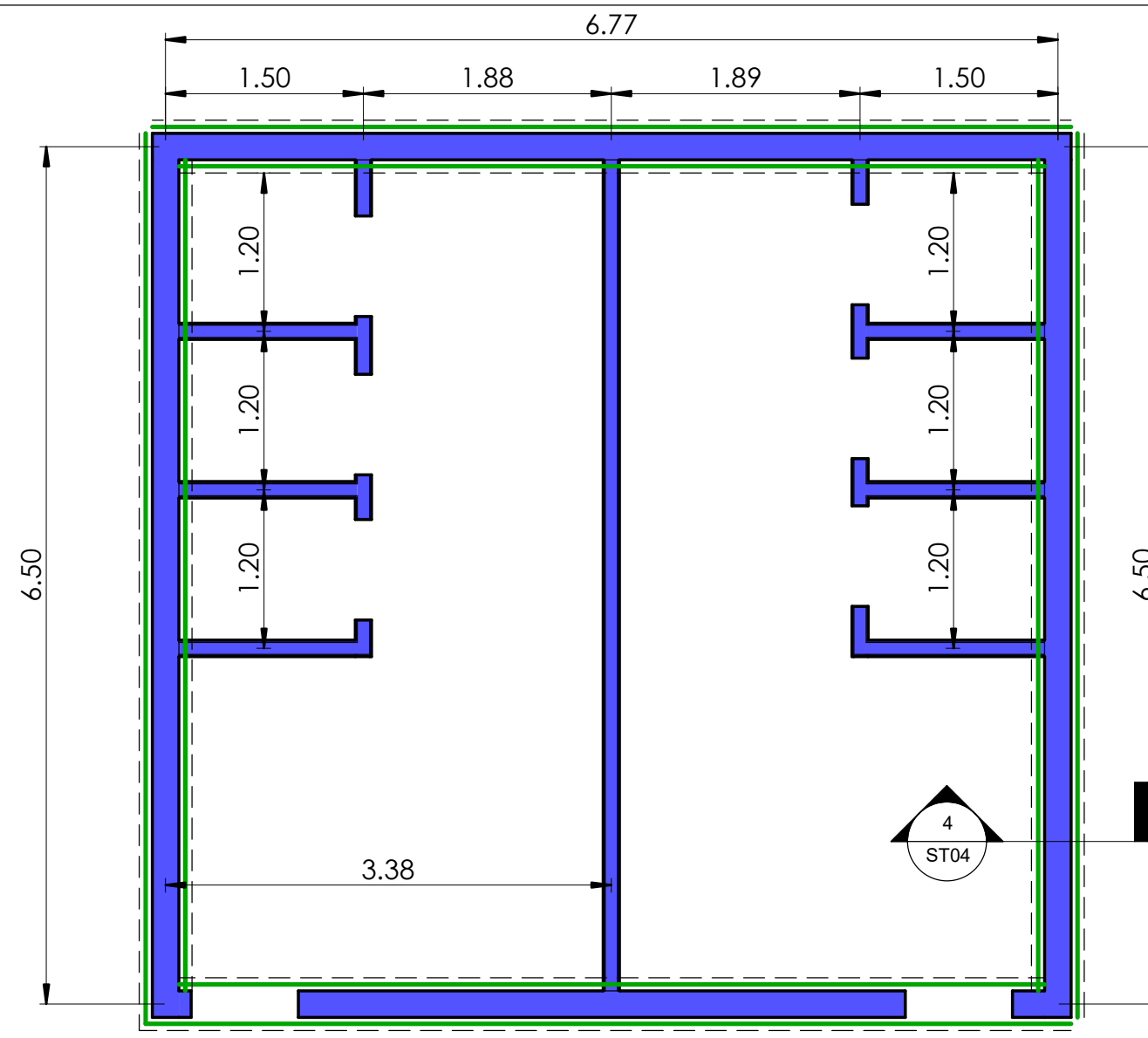
LOCATION :
AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :
ENG.IBRAHIM MOHAMMED IBRAHIM
CHECKED BY :
ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :
GRADE BEAM PLAN

DATE : April - 2022

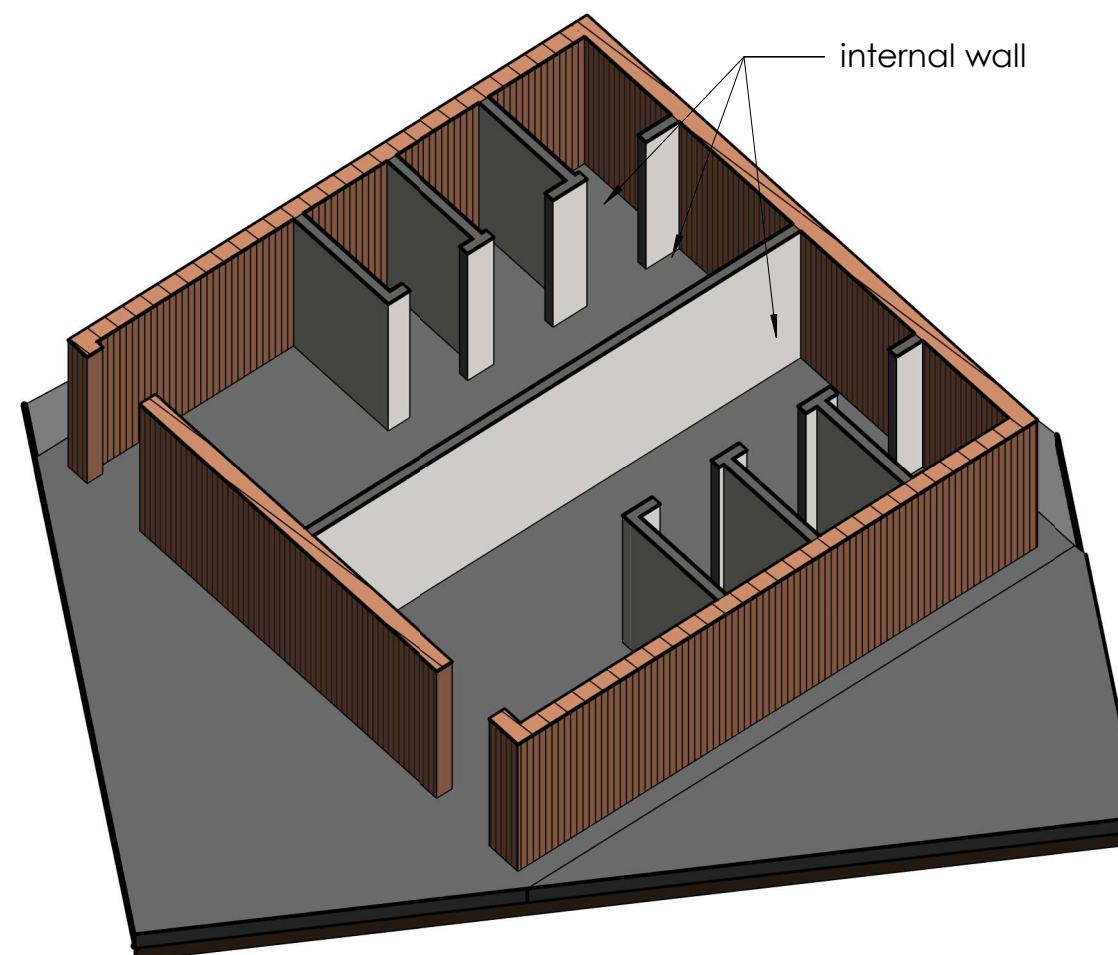
INDEX :	SCALE :	
ST02	As indicated	



1 Walls Plan
1 : 50

Note:

- the interior walls should be constructed by Lightweight materials
- the interior walls should be constructed directly on the slab on grade



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+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

Legend

	Grade Beam
	Strip Foundation Boundary
	Walls

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG. IBRAHIM MOHAMMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Walls Plan

DATE: April - 2022

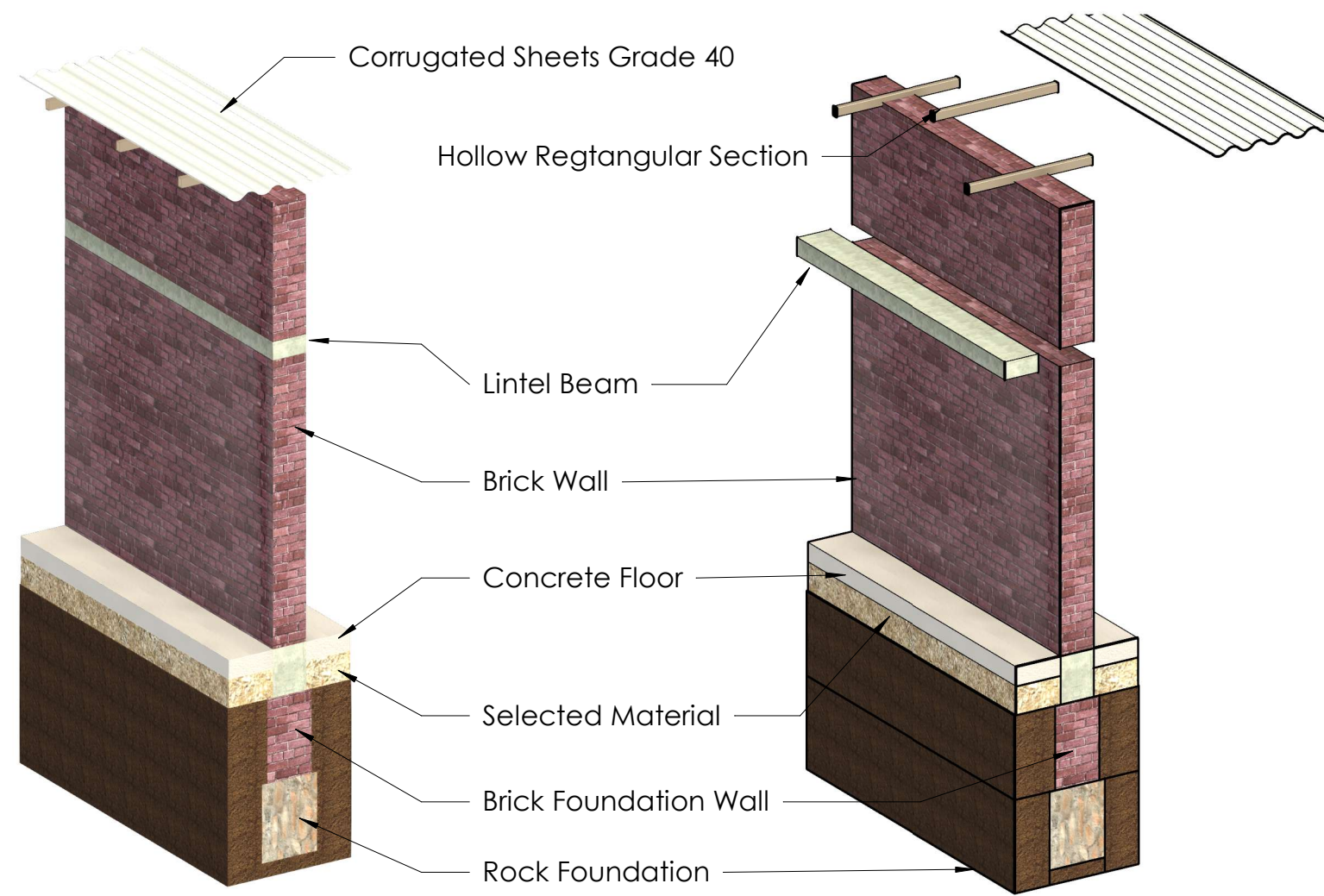
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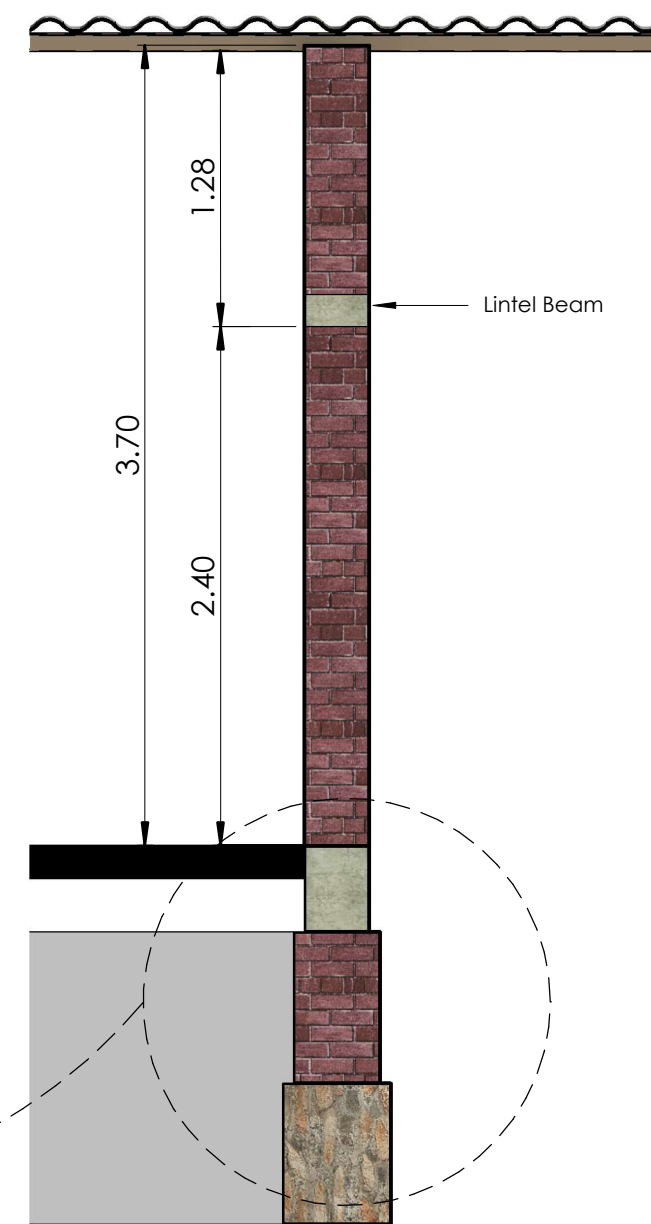
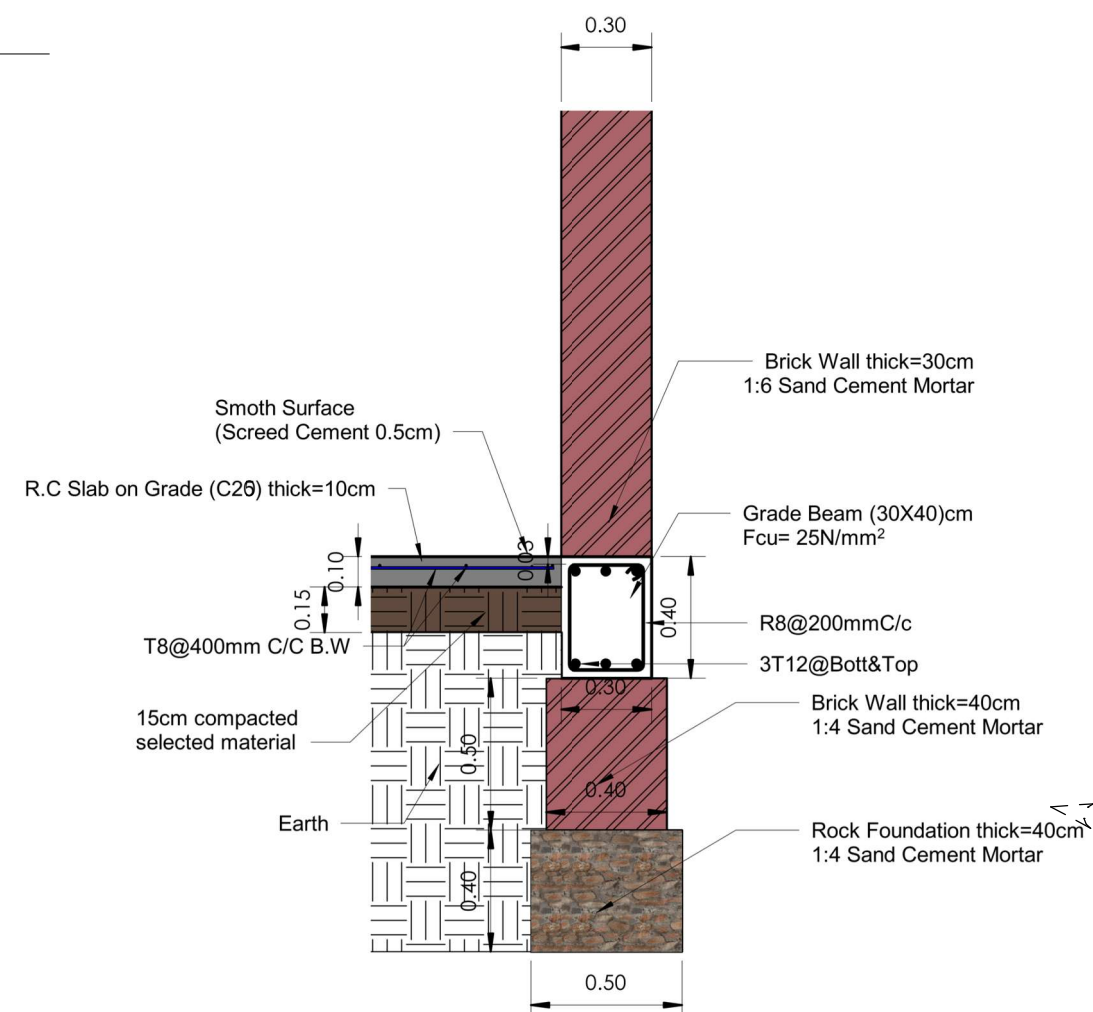
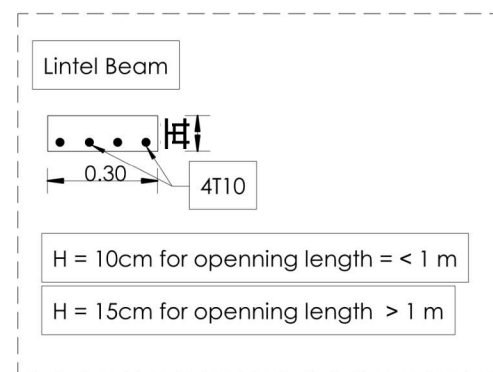
SCALE :

As
indicated





3 3D Section



2 Section 10

1 : 35



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TEL: +249925451234
+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG. IBRAHIM MOHAMMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

FOUNDATION SECTION & Details

DATE: April - 2022

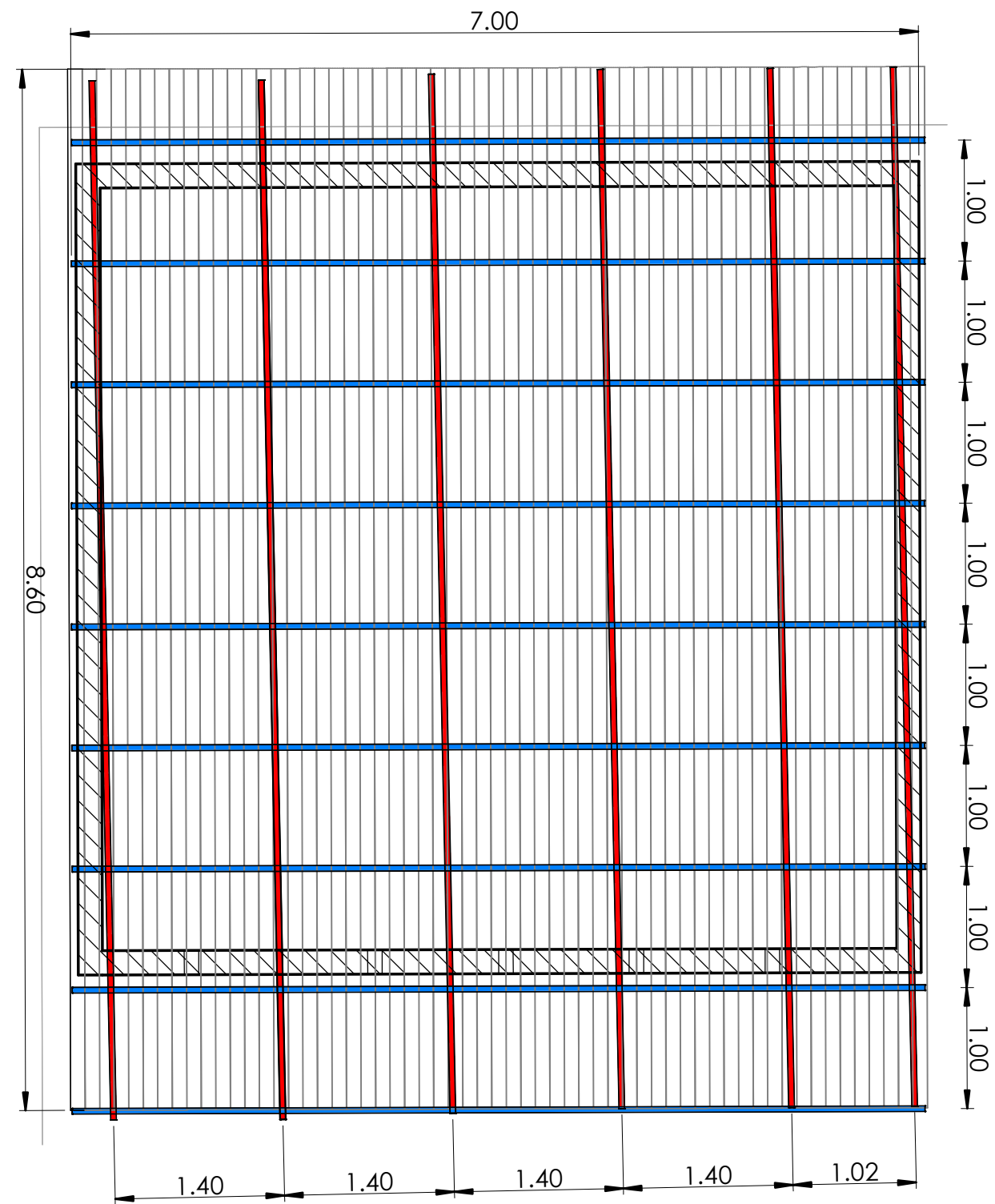
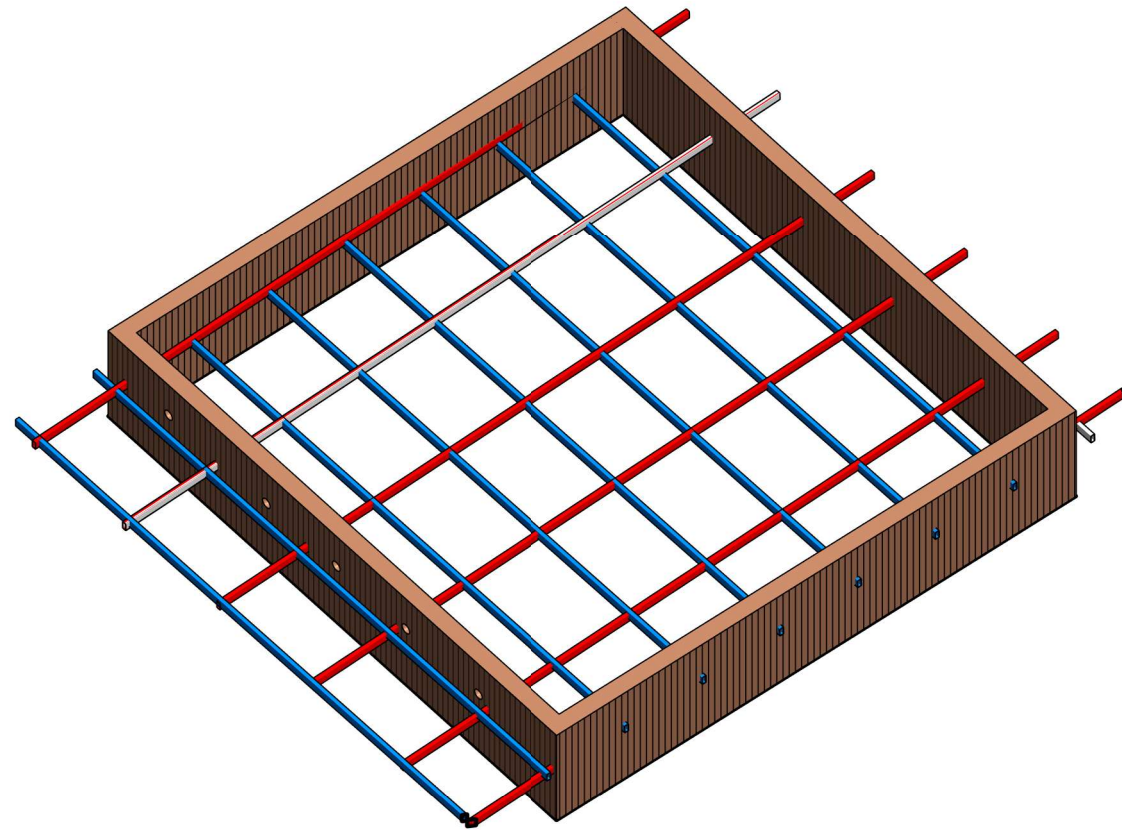
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ST04

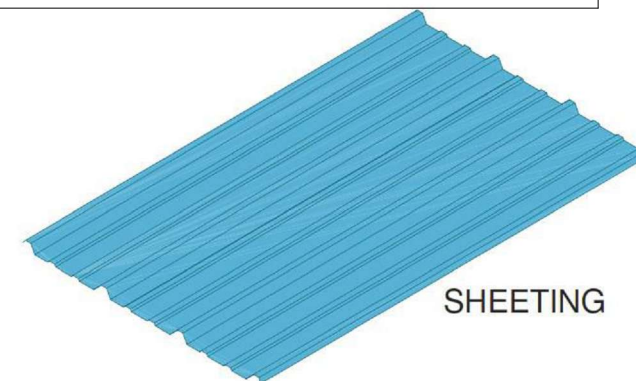
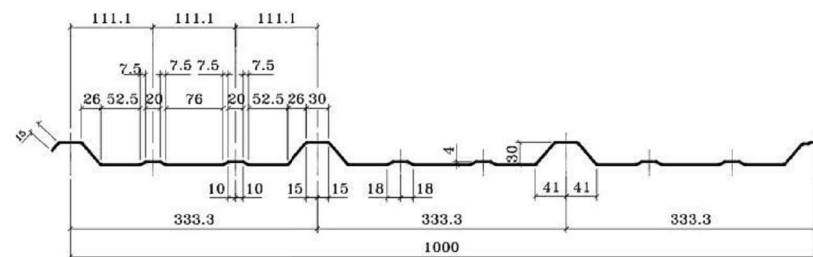
SCALE :

As
indicated





Note :
All the Roof sheeting Panel Must be Grade 40



SHEETING



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DOUBLE QTC ENGINEERING

Legend

	H.R.S 5X10X0.2
	H.R.S 4X8X0.2

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG. IBRAHIM MOHAMMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

ROOF REINFORCEMENT

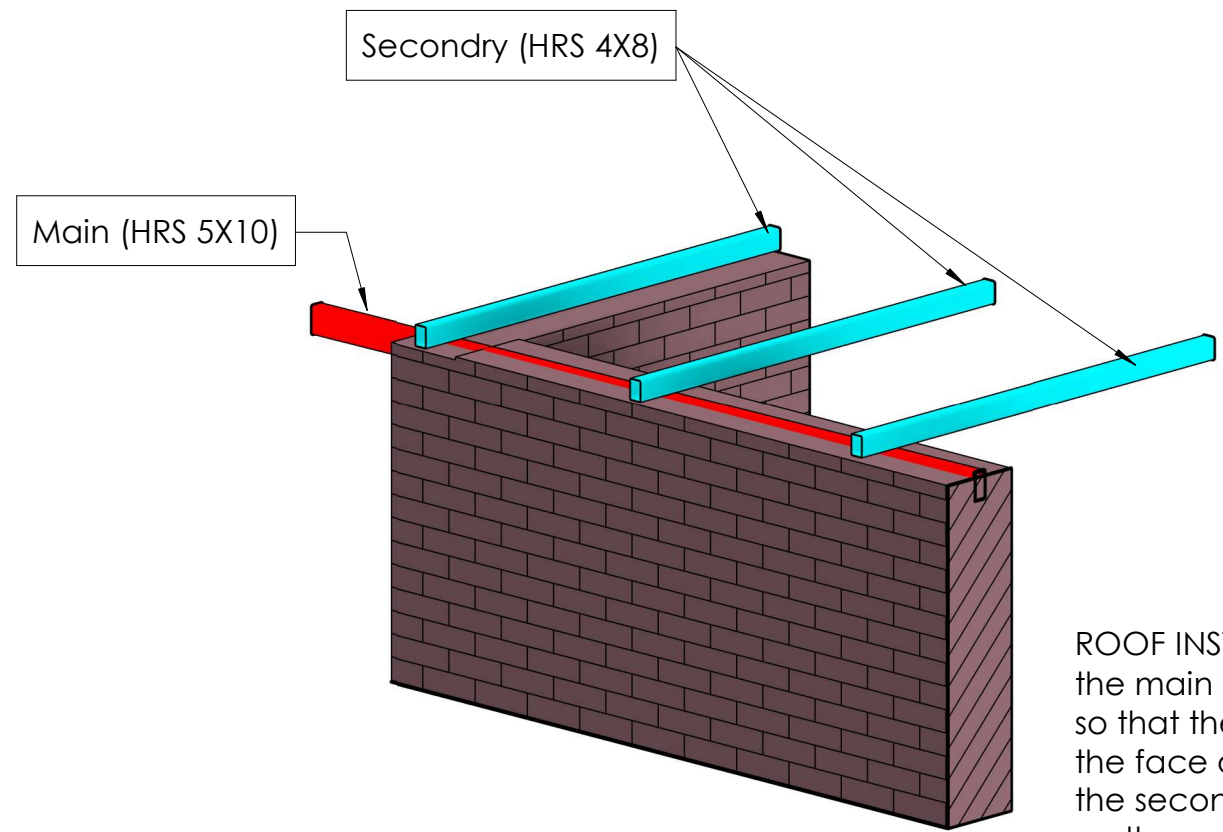
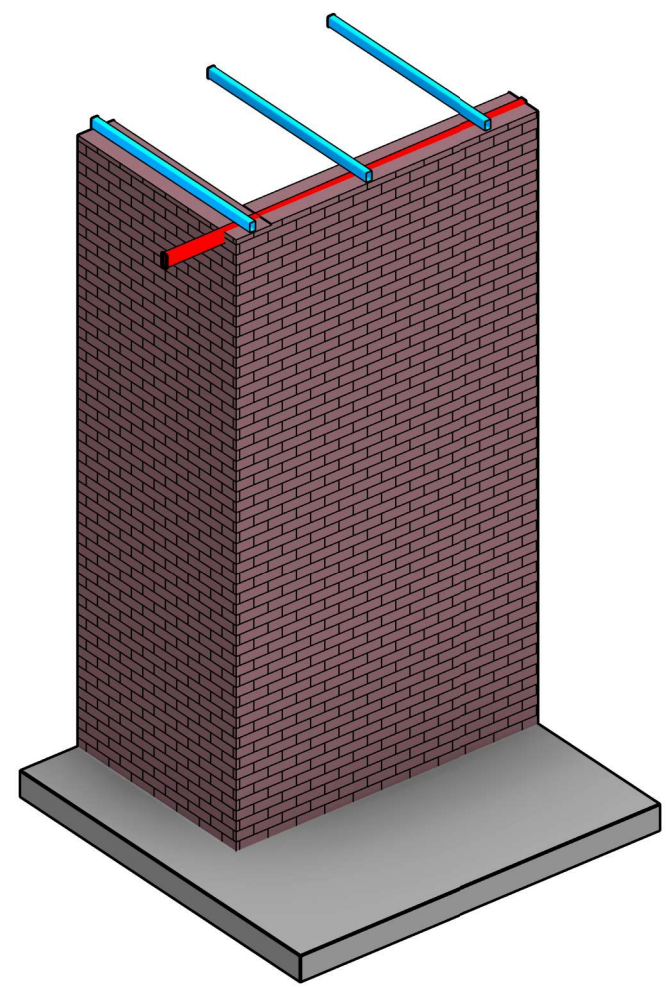
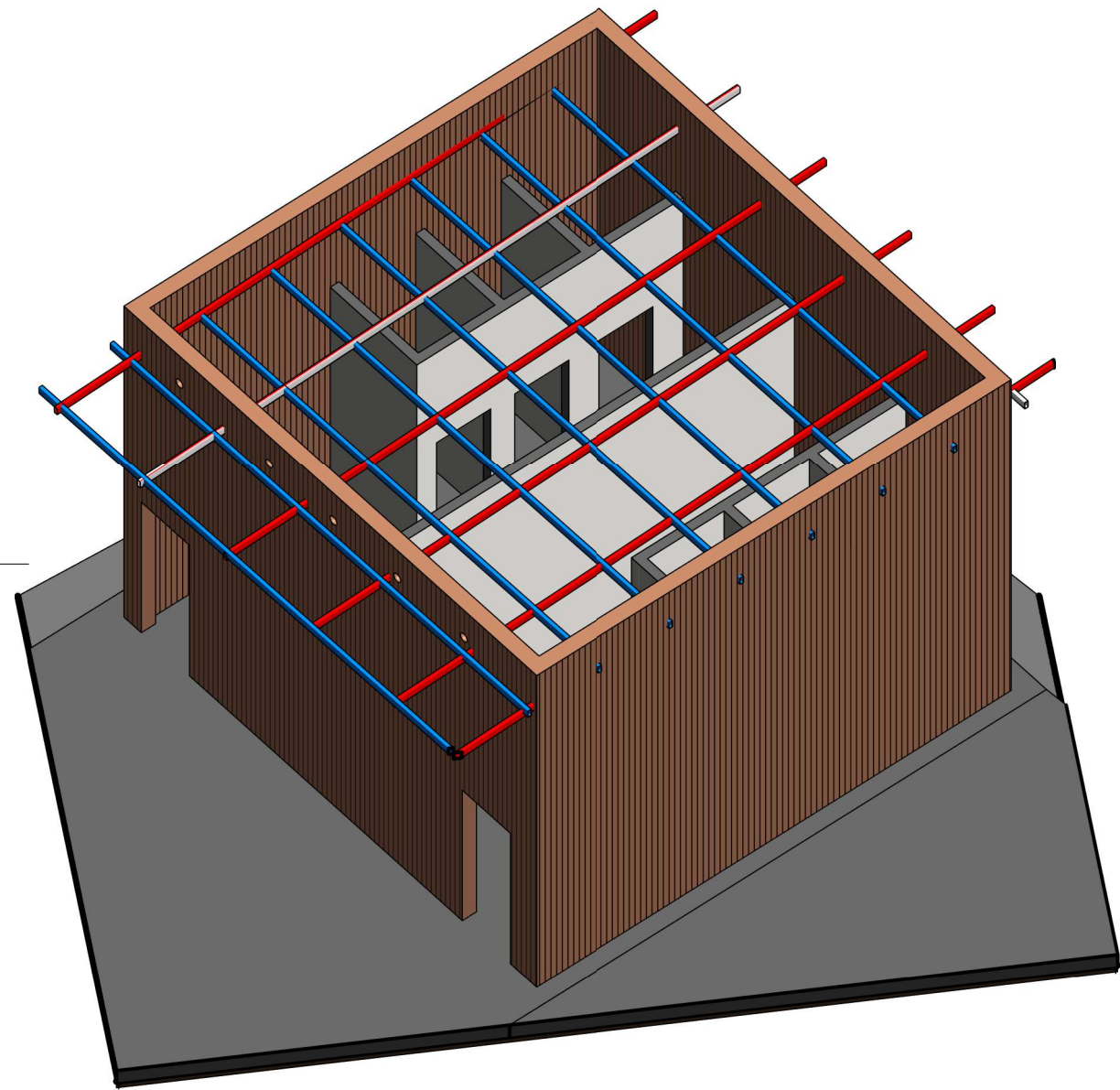
DATE: April - 2022

INDEX: ST05

SCALE: As indicated



1 Roof Fixidity Method.



ROOF INSTALLATON METHOD:
the main (HRS 5X10) is installed inside the walls
so that the face of the upper (HRS 5X10) is with
the face of the upper wall,
the secondry (HRS 4X8) is installed by welding
on the main (HRS 5X10) thus is stable above the wall

AGENZIA ITALIANA
PER LA COOPERAZIONE
ALLO SVILUPPO

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+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM

DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.IBRAHIM MOHAMMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Roof Installation Method

DATE: April - 2022

INDEX: ST06

SCALE:



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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

PROGRAM TITLE :
[T05-EUTF-HOA-SDN-73-01](#)

PROJECT TITLE :
[Al Flasher – AHS](#)

LOCATION :
[ALFASHER](#)

ARCHITECTURAL ENGINEER :
[ENG.Rayan Ahmed](#)
CHECKED BY :
[ENG. AMRAN MOHAMMED OTHMAN](#)



DRAWING TITLE :
[COVER PAGE](#)

DATE : [2022](#)

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Library Block

Sheet List	
Index	Sheet Name
AR.100	COVER PAGE
AR.101	SHEET LIST
AR.102	Ground Floor Finishing
AR.103	Ground Floor Door & windows
AR.104	Furniture
AR.105	ROOF PLAN
AR.106	Section Layout
AR.107	Elevations
ELE.101	Electrical Plan




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+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM


DOUBLE QTC ENGINEERING

PROGRAM TITLE :
[T05-EUTF-HOA-SDN-73-01](#)

PROJECT TITLE :
[DESIGN \(AHS\) IN AL FASHER, NORTH DARFUR STATE](#)

LOCATION :
[AL FASHER, NORTH DARFUR STATE](#)

STRUCTURAL ENGINEER :
[ENG.Rayan Ahmed](#)


CHECKED BY :
[ENG. AMRAN MOHAMMED OTHMAN](#)

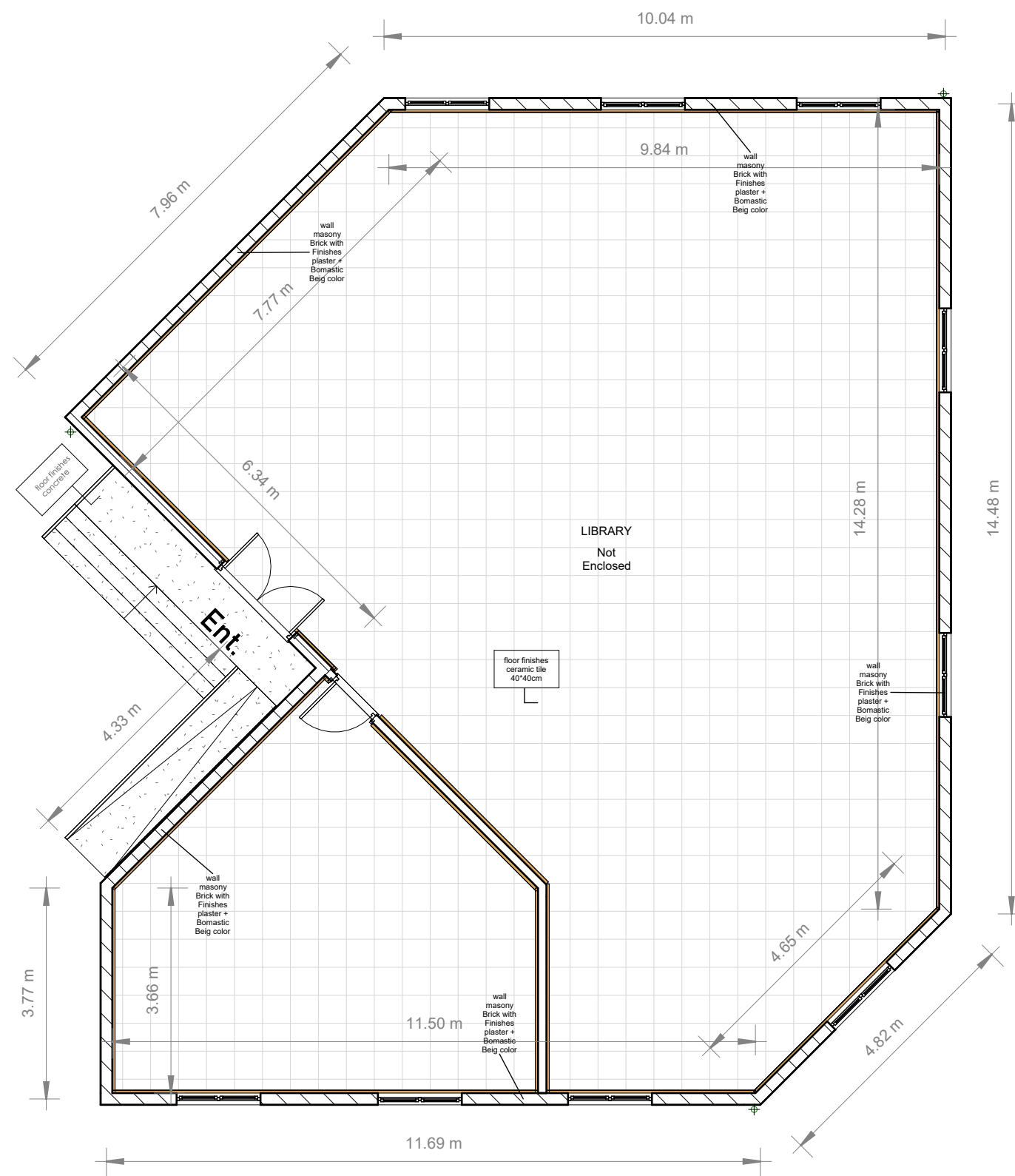
DRAWING TITLE :
[SHEET LIST](#)

DATE : [Issue Date](#)



INDEX :
[AR.101](#)

SCALE :





1 Library Block Finishing
1 : 100




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13 Project St. no 33 Amarat, House no 25
Block 12 K-east Khartoum, SUDAN

AL-Amarat Mohamed Najeeb Street, Khartoum






TEL: +249925451234
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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

Legend:

	internal flooring(+0.45) with ceramic tiles (60x60cm)
	internal flooring(+0.45) with ceramic tiles (40x40cm)
	Screed cement finishing
	wall ceramic tiles (20x20cm)
	internal wall finishes paint (Bomastic) Beig color

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER, NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Rayan Ahmed


CHECKED BY :

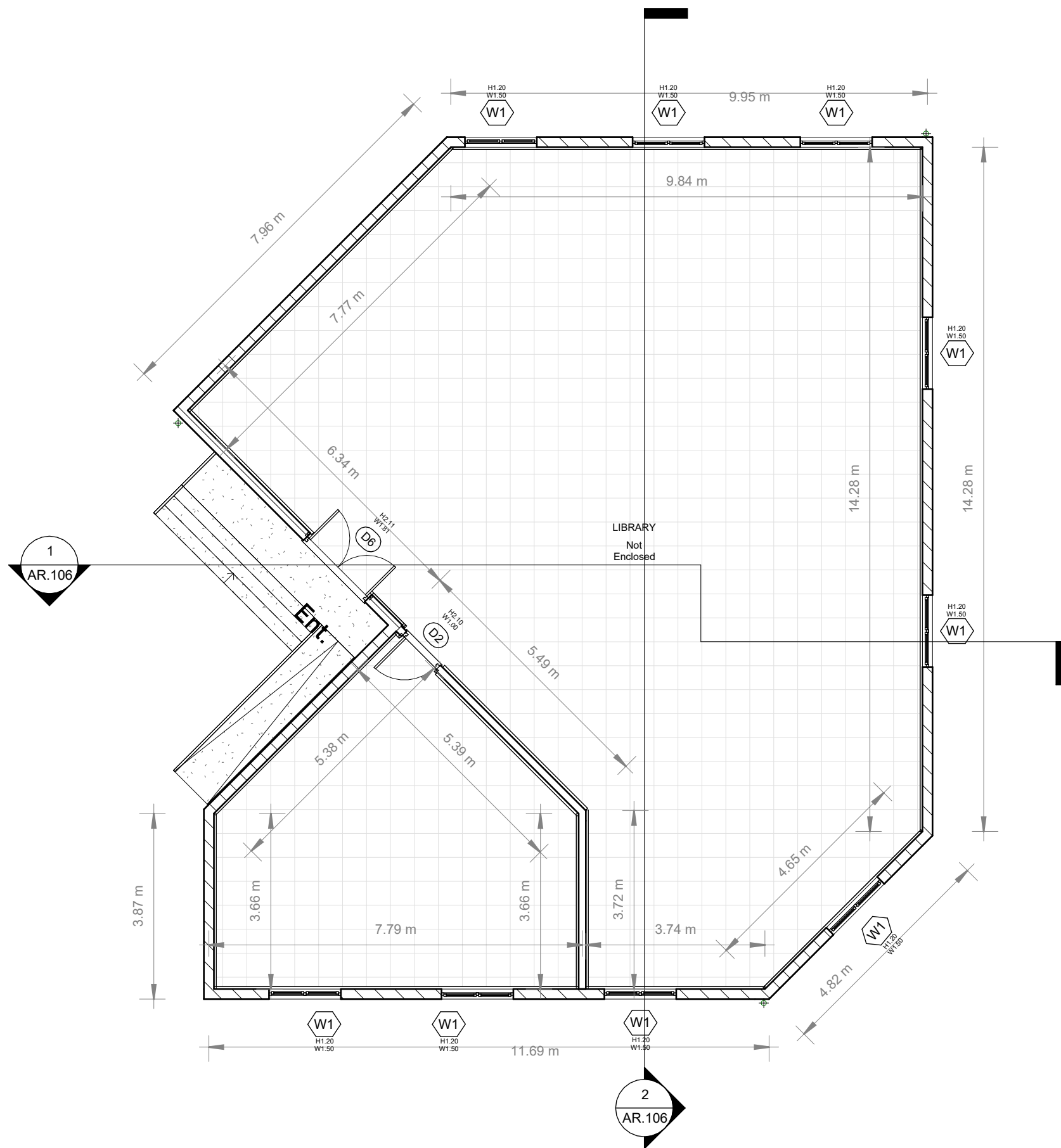
ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Ground Floor Finishing

DATE : Issue Date

INDEX :	SCALE :	
AR.102	As indicated	



1 Library Block Door & windows
1 : 100

Legend					
type	width	height	count	elevation floor	floor plan
D1	1.00	2.00			
D2	1.00	2.10	1		
D3	0.91	2.03			
D4	0.76	2.13			
D5	1.50	2.10			
D6	1.81	2.11	1		
D7	2.90	2.90			

Legend					
type	width	height	count	elevation floor	floor plan
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W2	1.80	2.00			
W3	2.01	2.50			
W4	0.60	0.60			

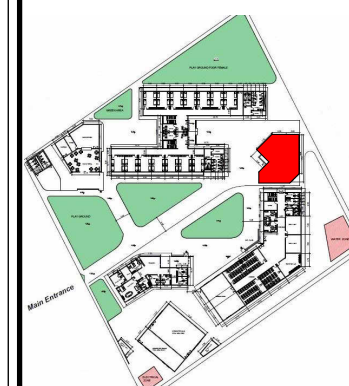


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Block 12 K-east Khartoum, SUDAN

AL-Amarat Mohamed Najeeb Street, Khartoum

TEL: +249925451234
+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



PROGRAM TITLE:

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE:

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION:

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER:

ENG.Rayan Ahmed

CHECKED BY:

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE:

Ground Floor Door & windows

DATE: Issue Date

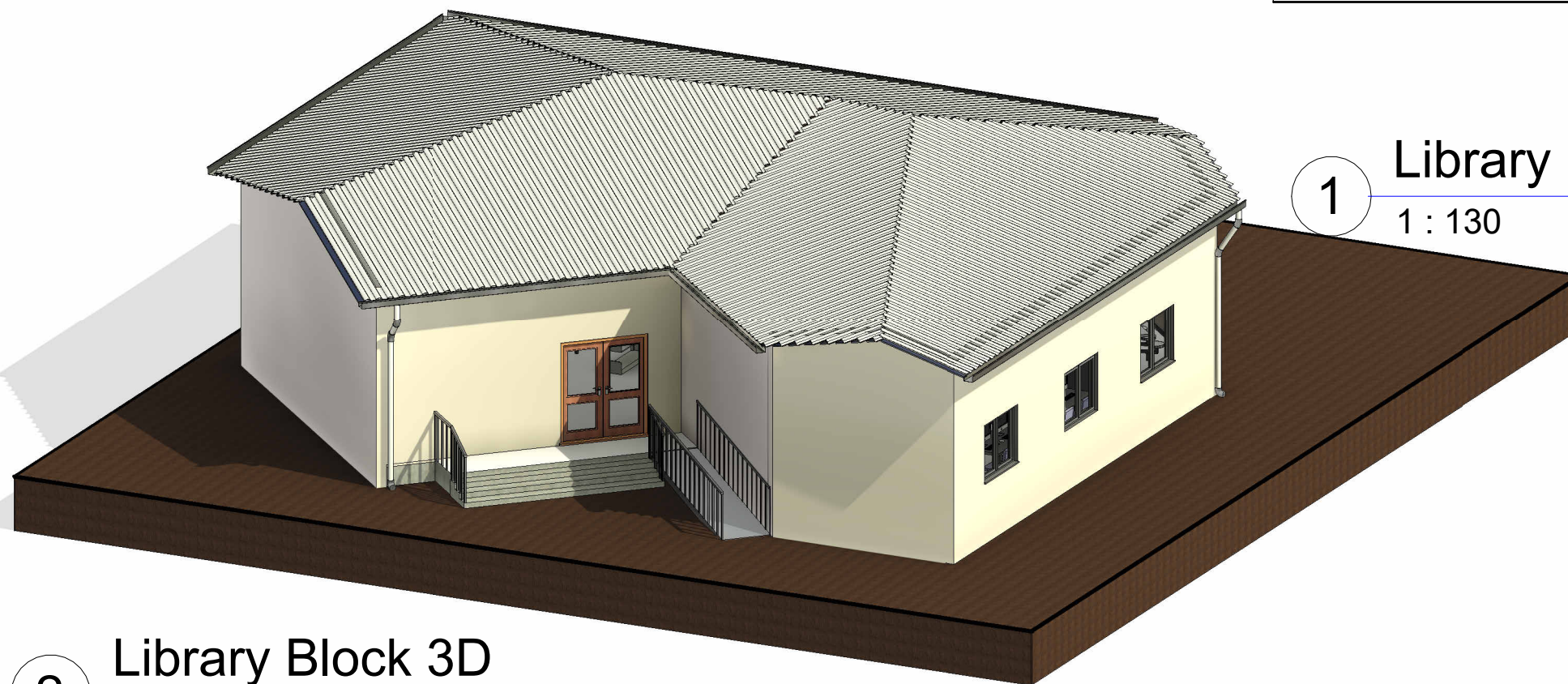
INDEX:

AR.103

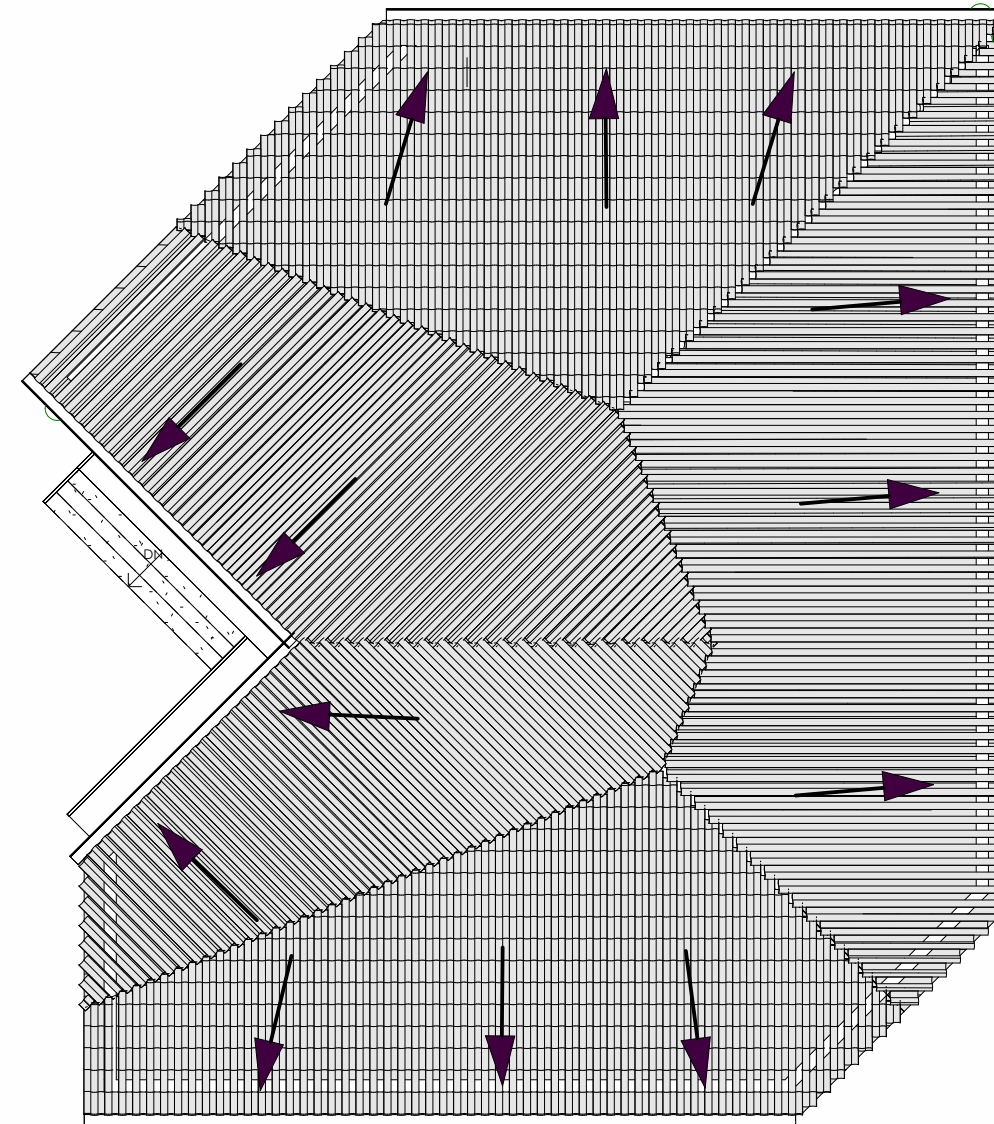
SCALE:

As
indicated





2 Library Block 3D



1 Library Block ROOF PLAN
1 : 130



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Cooperation – SDN
13 Project St. no 33 Amarat, House no 25
Block 12 K-east Khartoum, SUDAN

AL-Amarat Mohamed Najeeb Street, Khartoum

TEL: +249925451234
+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



PROGRAM TITLE :
T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :
DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :
AL FASHER, NORTH DARFUR STATE

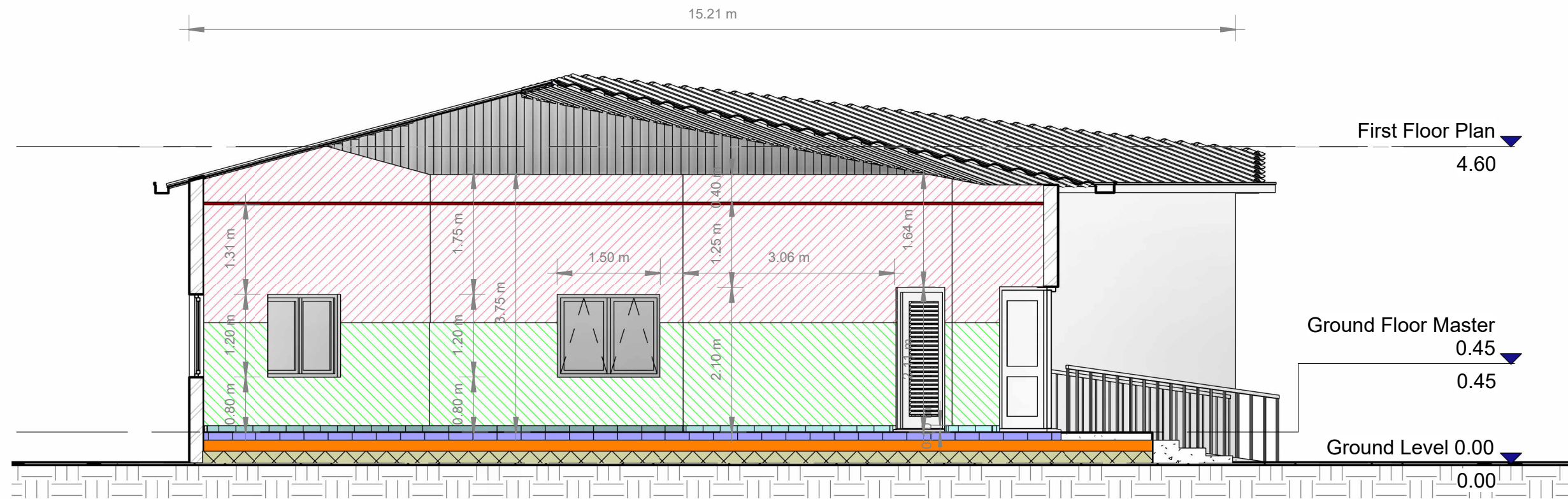
STRUCTURAL ENGINEER :
ENG.Rayan Ahmed

CHECKED BY :
ENG. AMRAN MOHAMMED OTHMAN

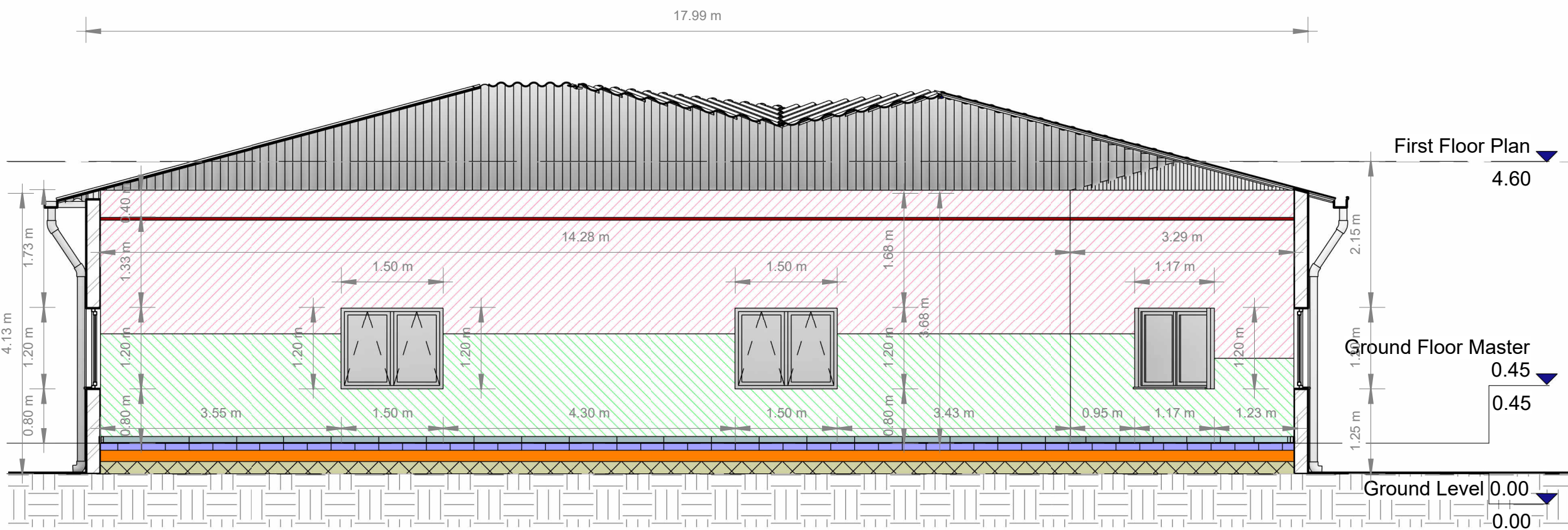
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ROOF PLAN

DATE : Issue Date

INDEX : AR.105	SCALE : As indicated	
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










1 Library Block Section-A
1 : 70



2 Library Block Section-B
1 : 70

legend

	Wall Tiles 15X15
	Emulsion paint (internal) from 1.70m up to ceiling
	Glossy oil paint (internal) from floor up to 1.70m
	Skirting Tiles 40X10
	Floor Tiles 40X40
	Compacted Soil
	False ceiling
	Reinforced Concrete
	Concrete
	Rain Drain Pipe
	Galvanized Gutters

PROGRAM TITLE:

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE:

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION:

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER:

ENG.Rayan Ahmed

CHECKED BY:

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE:

Section Layout

DATE: Issue Date

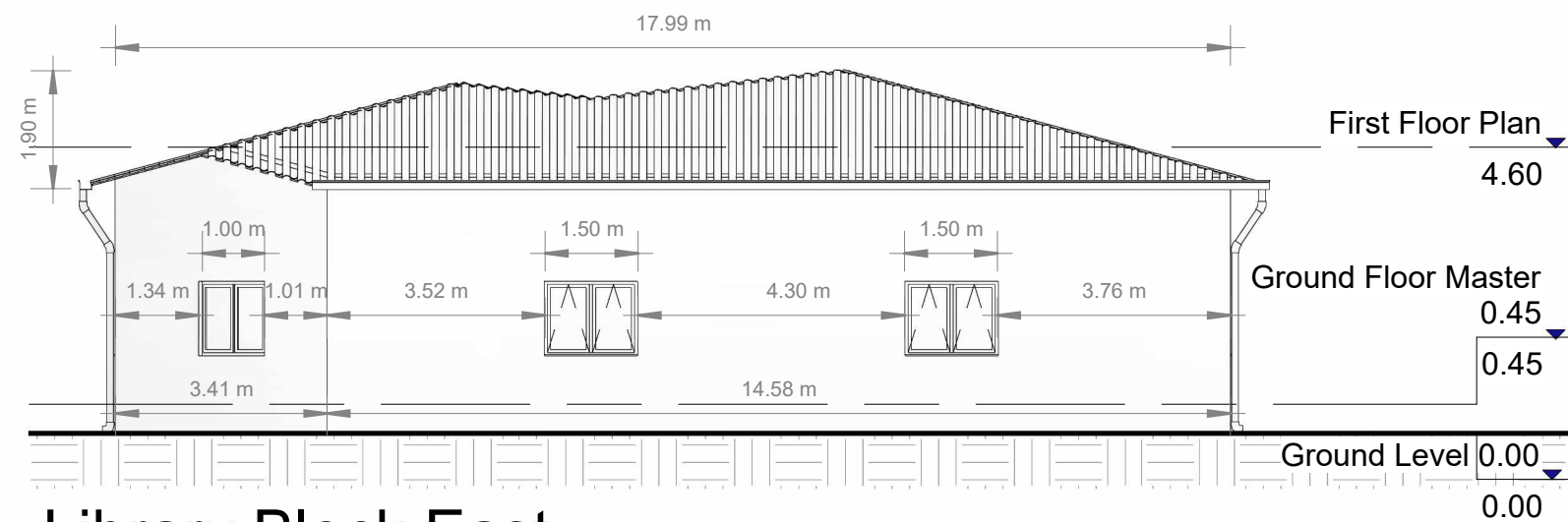
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AR.106

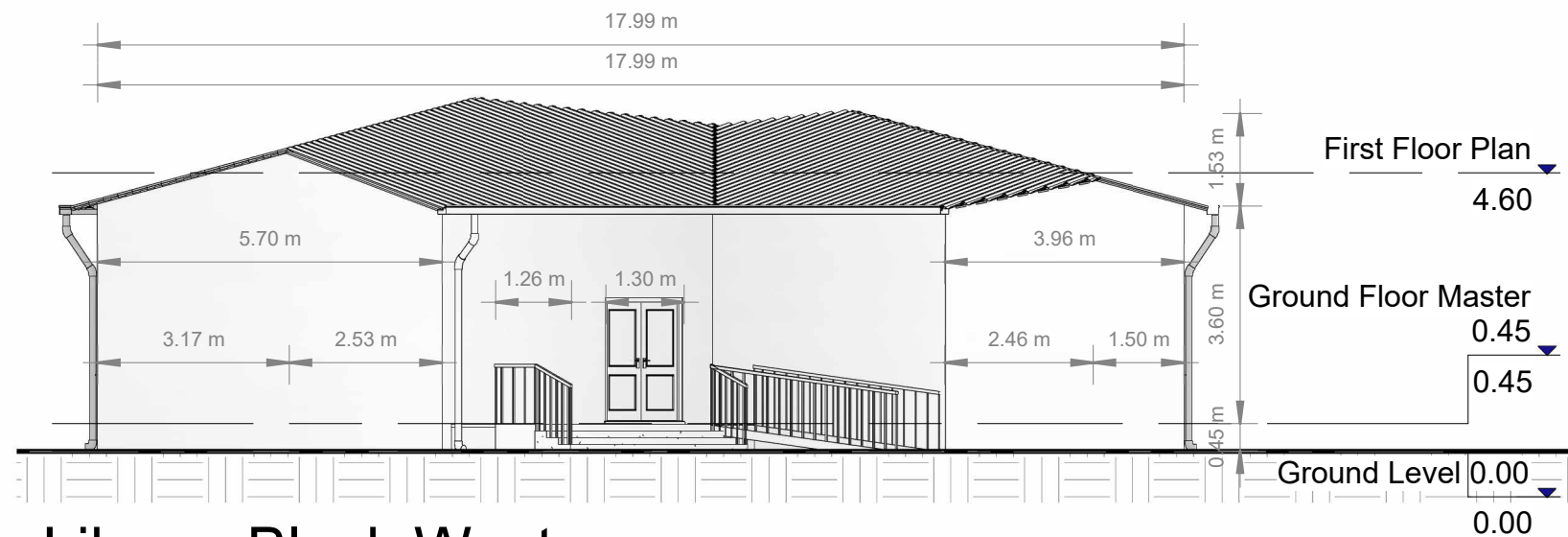
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indicated

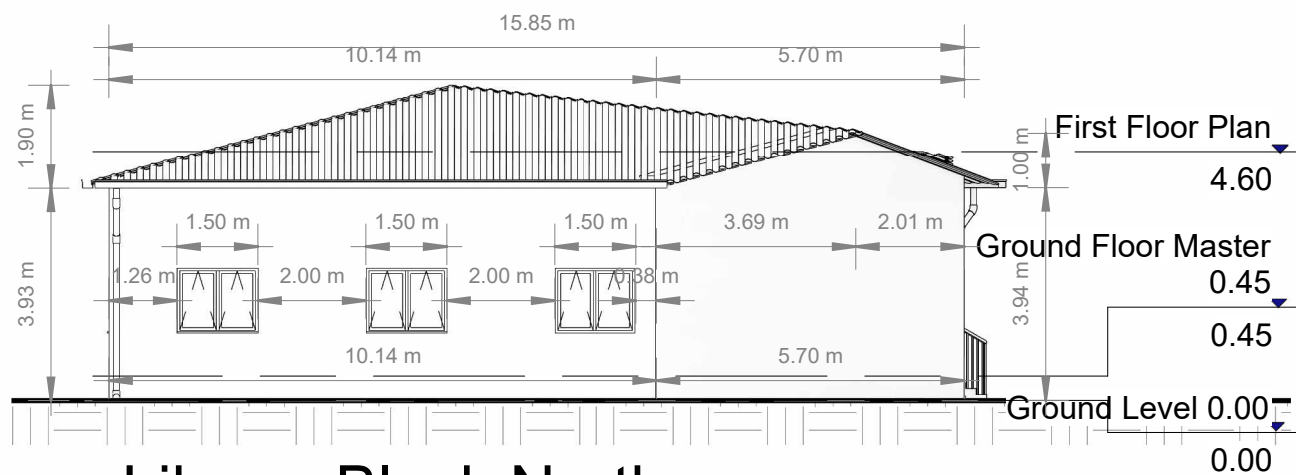




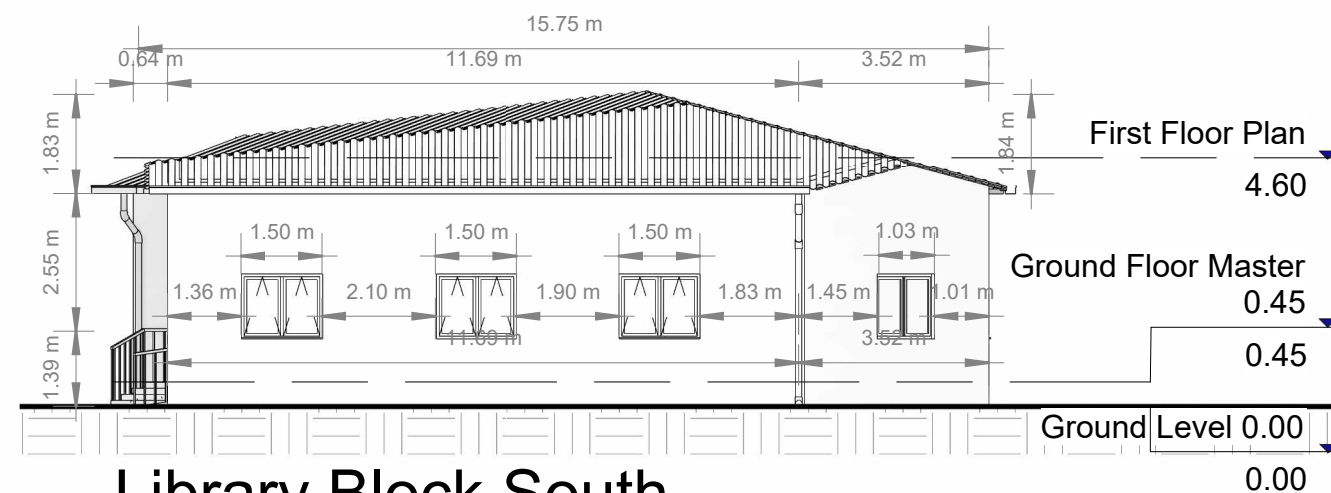
1 Library Block East
ELEVATION
1: 120



2 Library Block West
ELEVATION
1: 120



3 Library Block North
ELEVATION
1: 140



4 Library Block South
ELEVATION
1: 140



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+249115418666

EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

PROGRAM TITLE:

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE:

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION:

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER:

ENG. Rayan Ahmed

CHECKED BY:

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE:

Elevations

DATE: Issue Date

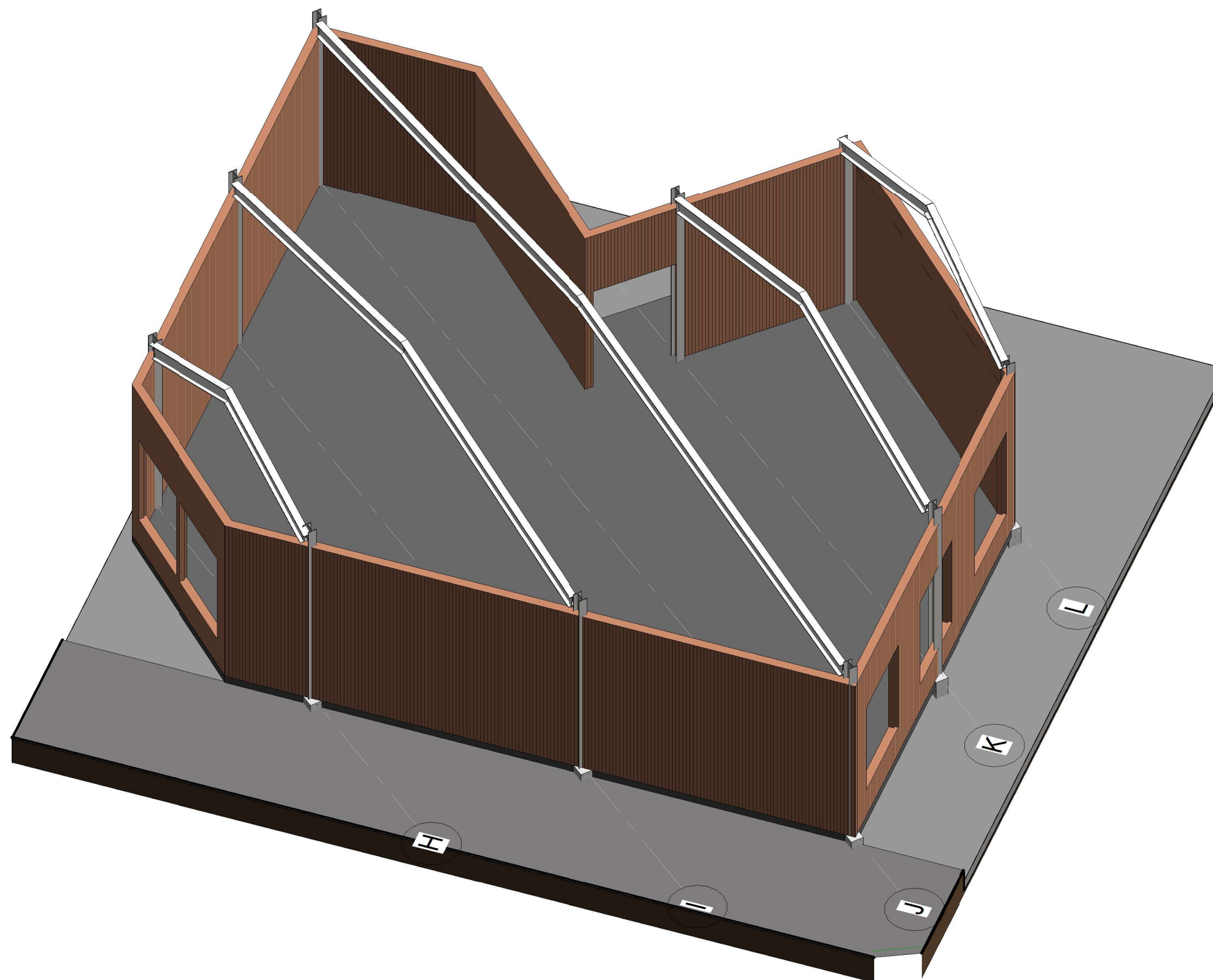
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AR.107

SCALE:

As
indicated





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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

GENERAL 3D

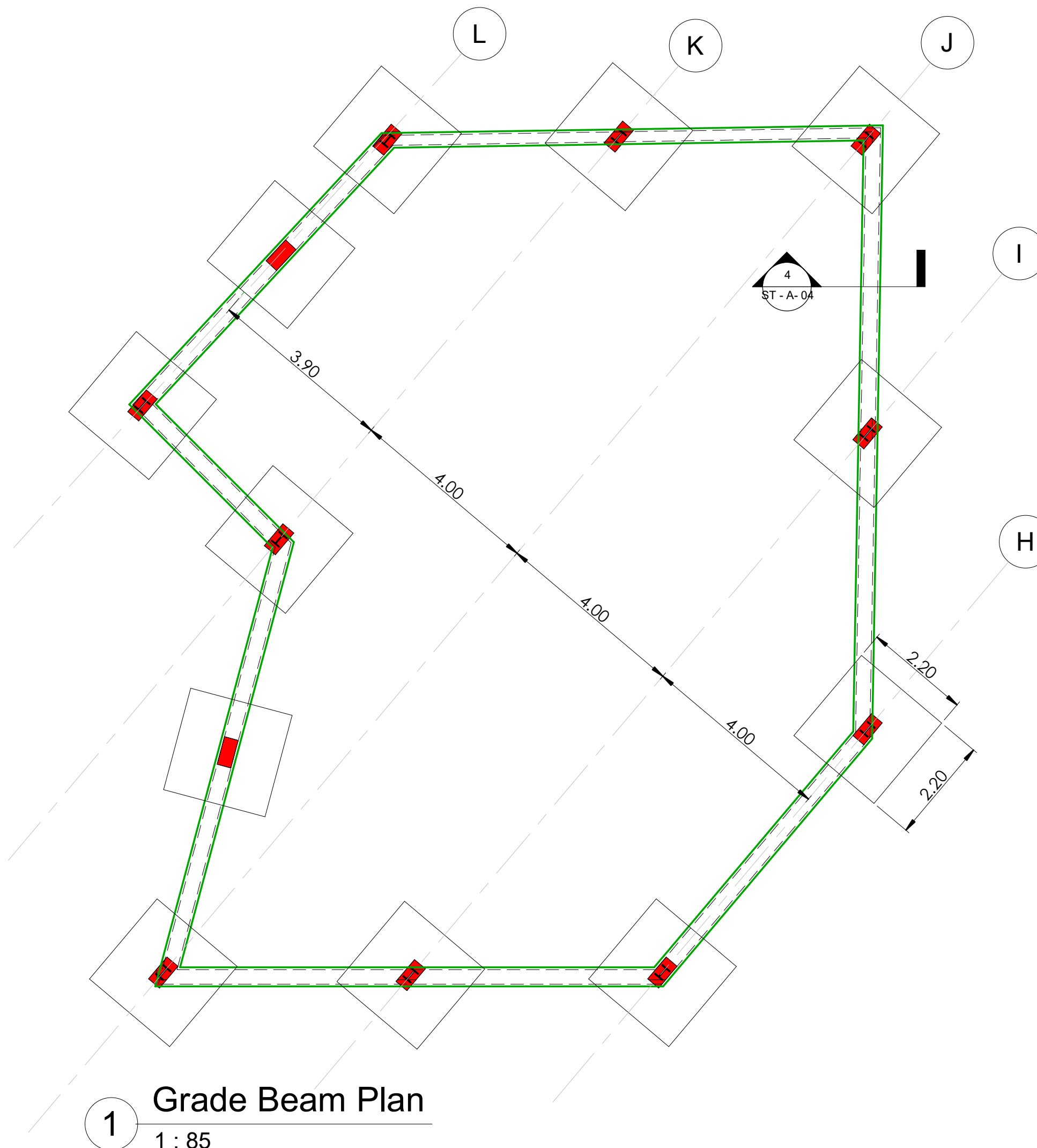
DATE: April - 2022

INDEX :

ST - A - 01

SCALE :





Grade Beam Plan

1 : 85



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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

Legend

	Grade Beam
	Strip Foundation Boundary

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

GRADE BEAM PLAN

DATE: April - 2022

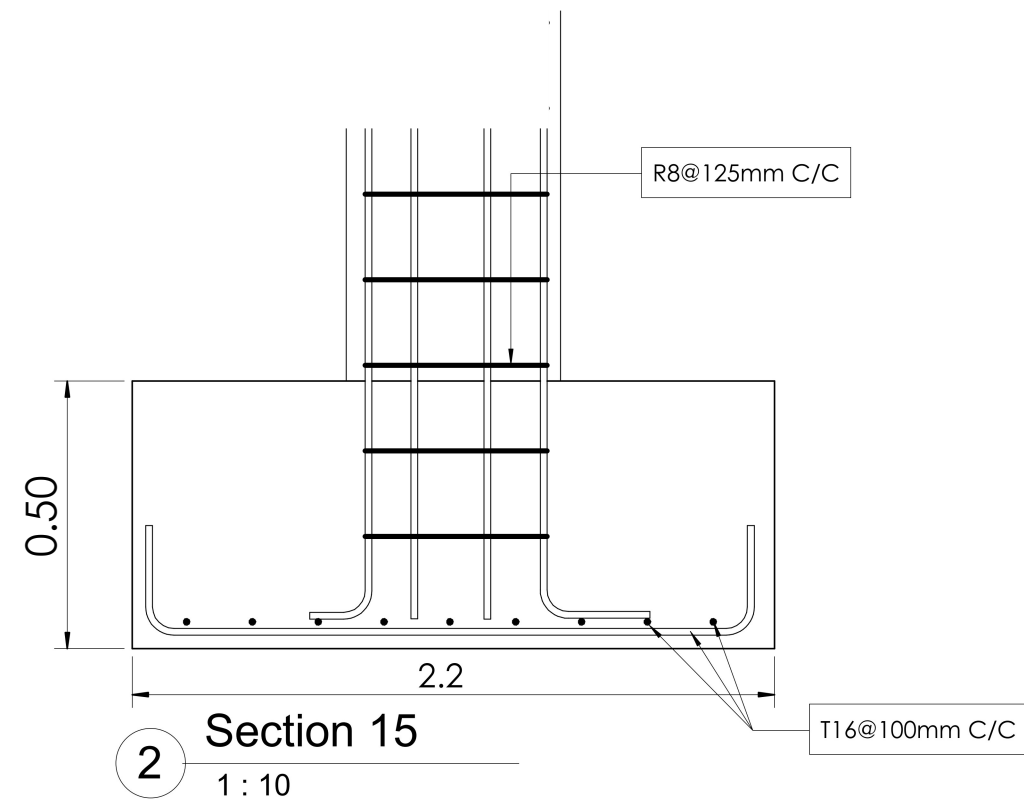
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ST - A- 02

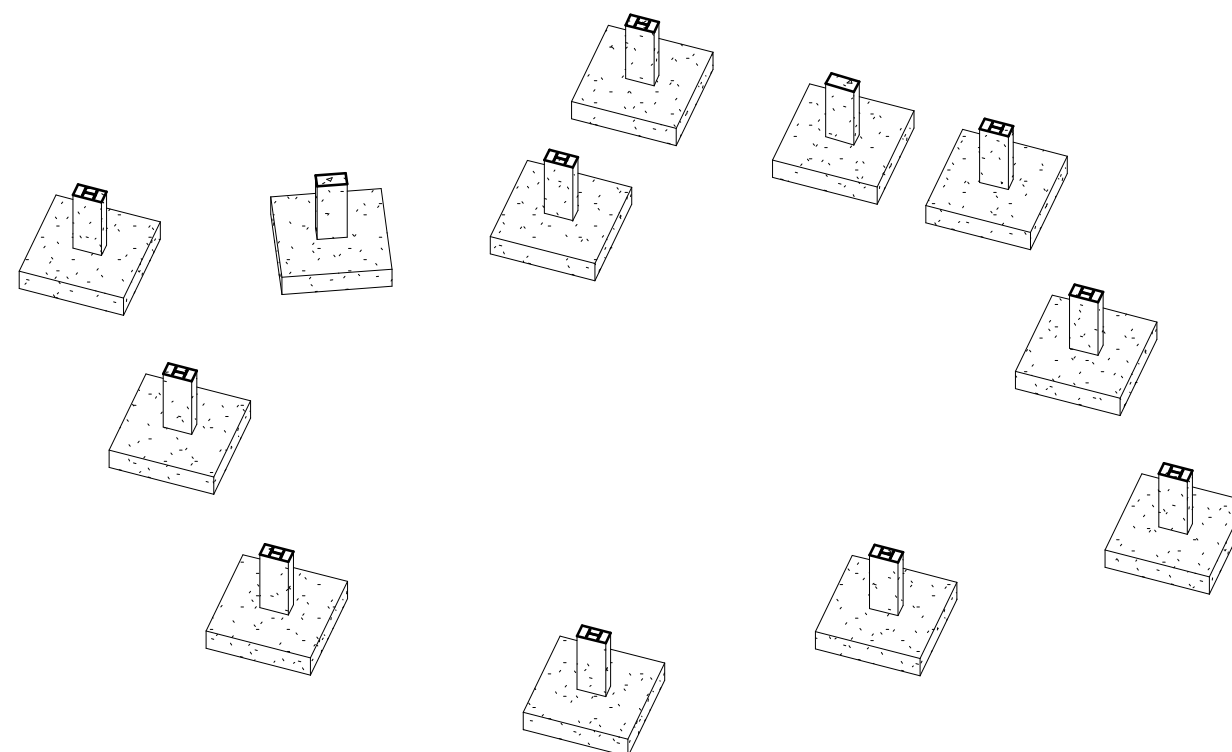
SCALE:

1 : 85





Structural Foundation Schedule .					
Type	Width	Length	Foundation Thickness	Count	Reinforcement
F3	2.20	2.20	0.50	12	T16@150mmC/C B.W



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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.IBRAHIM MOHAMMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Footing Details

DATE: April - 2022

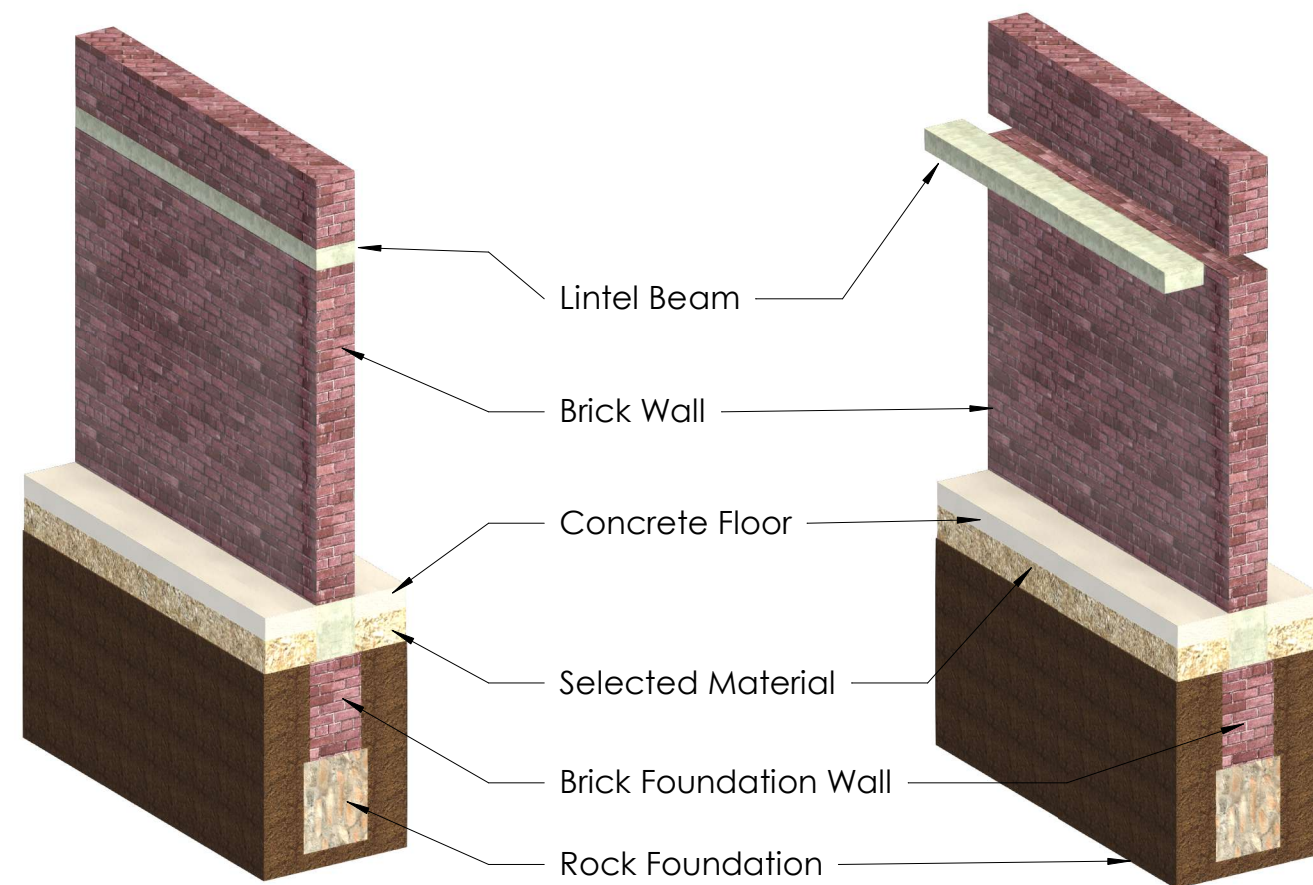
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ST 02-1

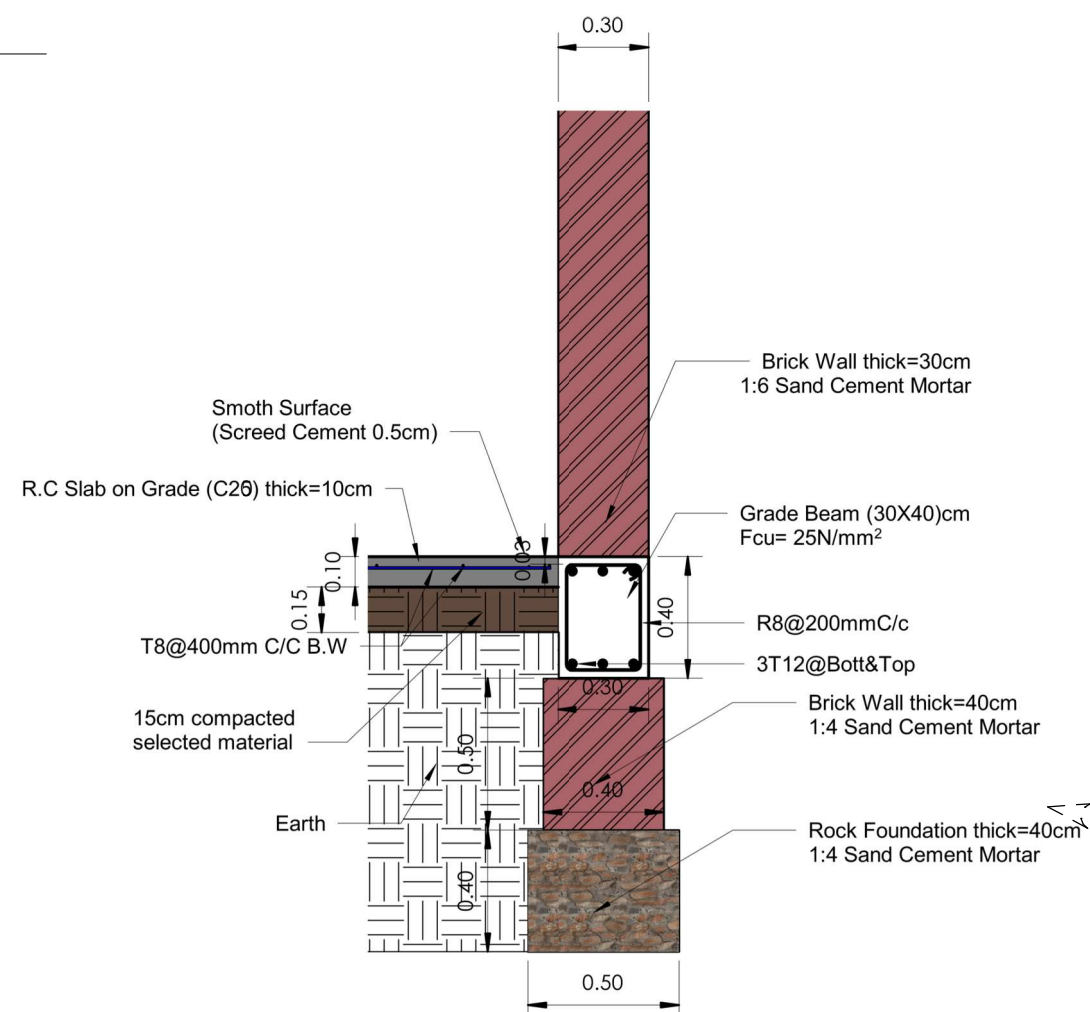
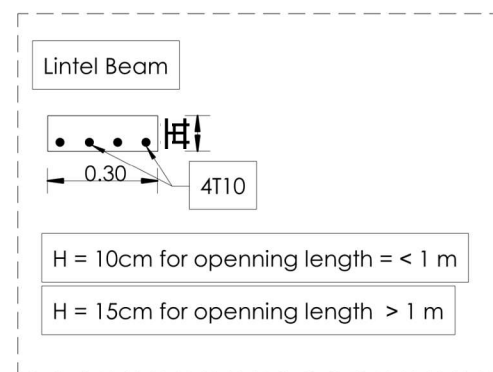
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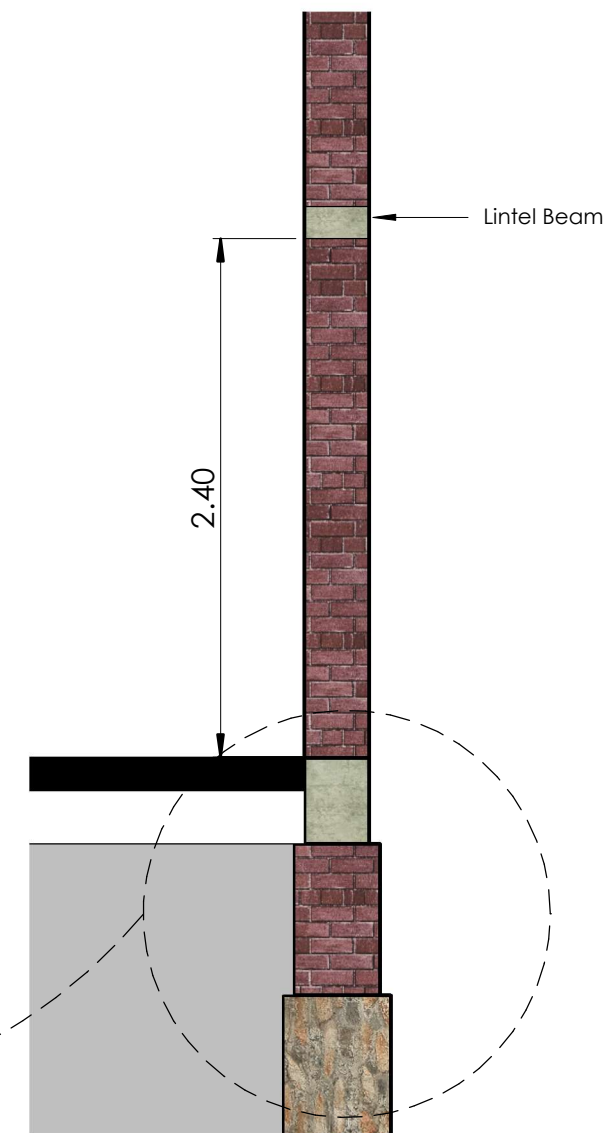


3 3D Section



4 Section 12

1 : 85



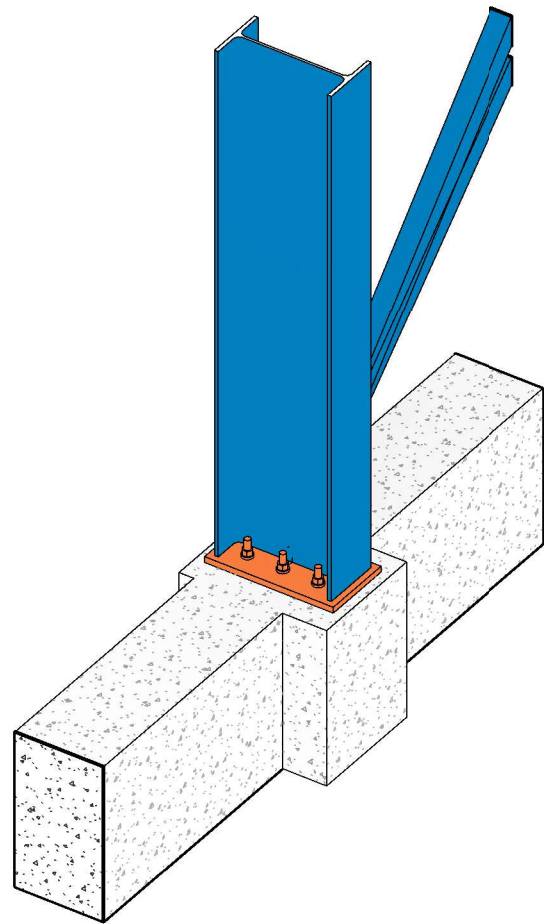
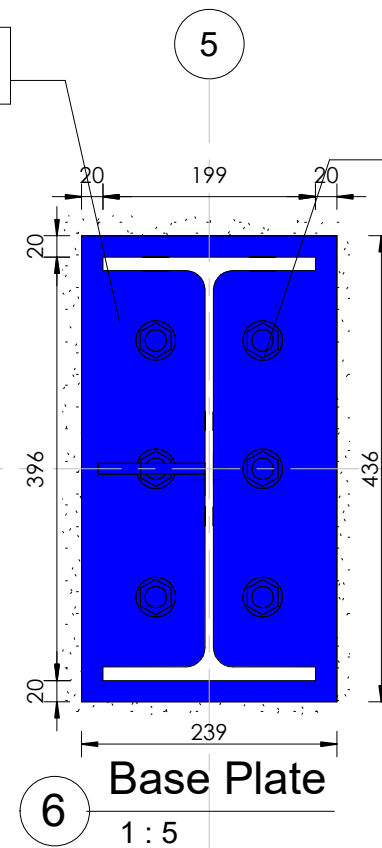
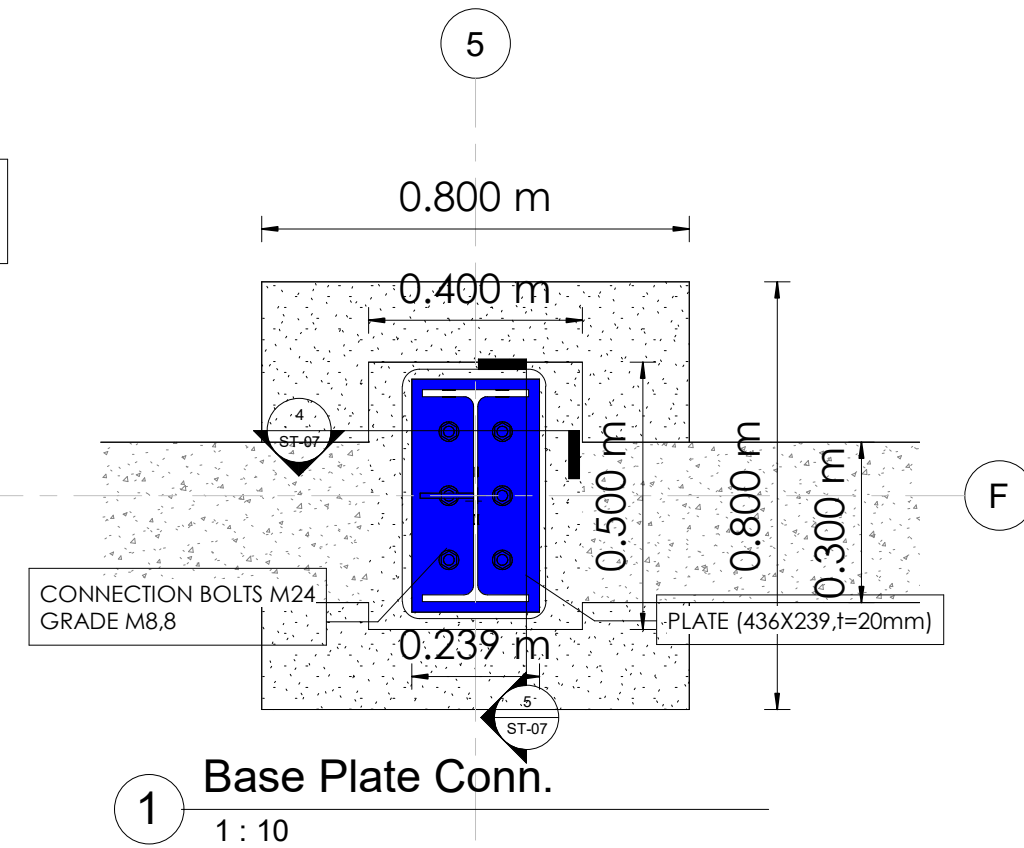


PLATE (436X239,t=20mm)

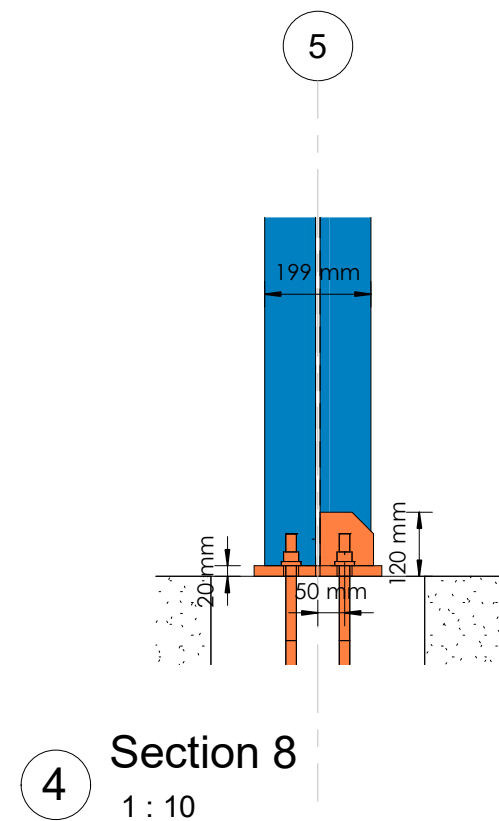
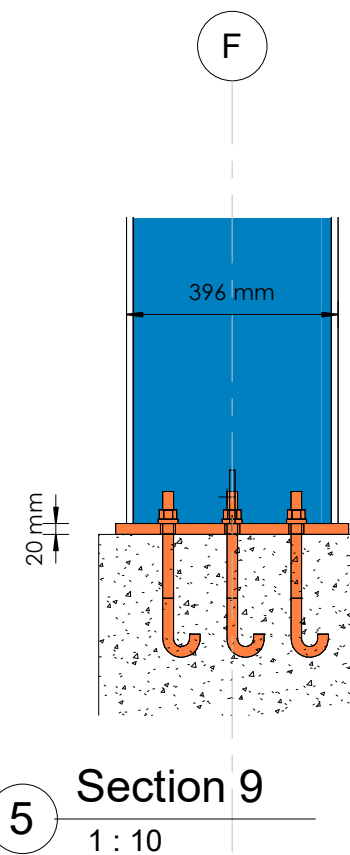
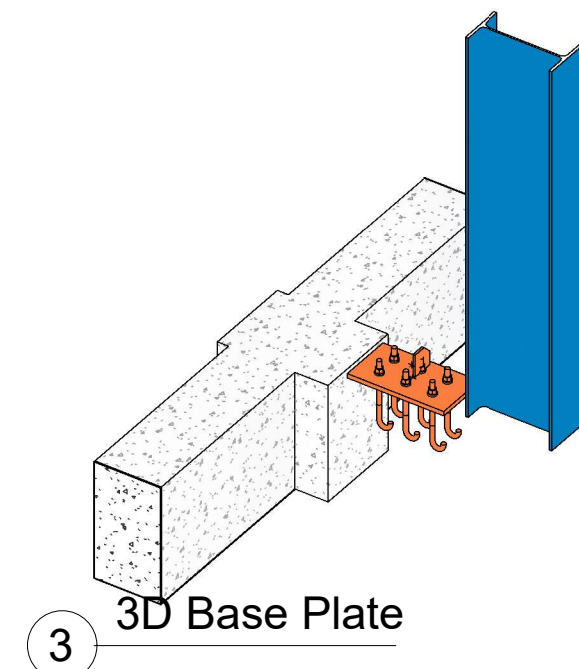


CONNECTION BOLTS M24
GRADE M8,8



CONNECTION BOLTS M24
GRADE M8,8

PLATE (436X239,t=20mm)



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PROPERTY OF :
Italian Agency for Development
Cooperation - SDN

PROJECT NAME :

Project Name

LOCATION :

Enter address here

ARCHITECT :

ENG.Author

STRUCTURAL ENGINEER :

ENG.IBRAHIM MOHAMED IBRAHIM

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

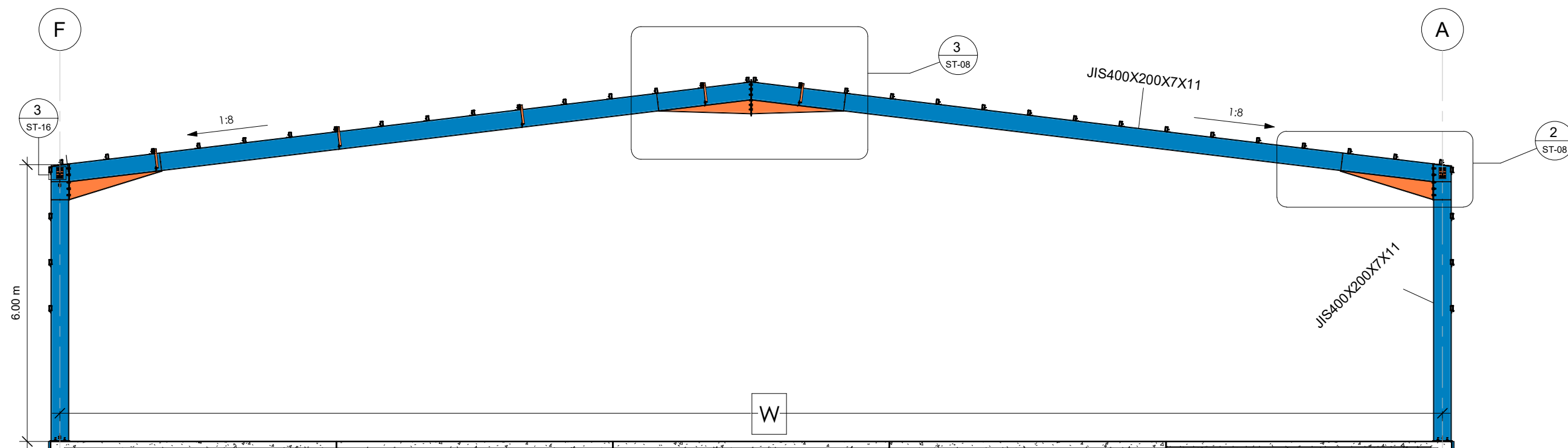
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BASE PLATE DETAILES

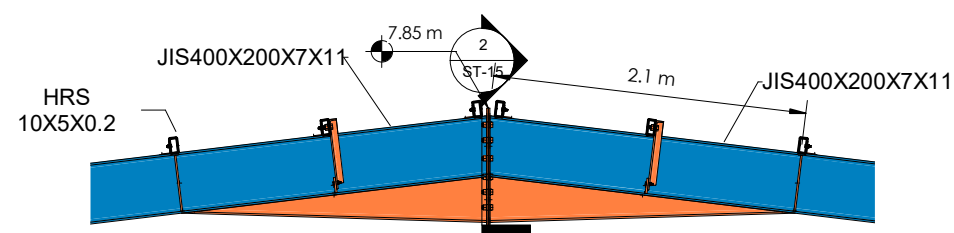
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ST-07

SCALE :
As indicated

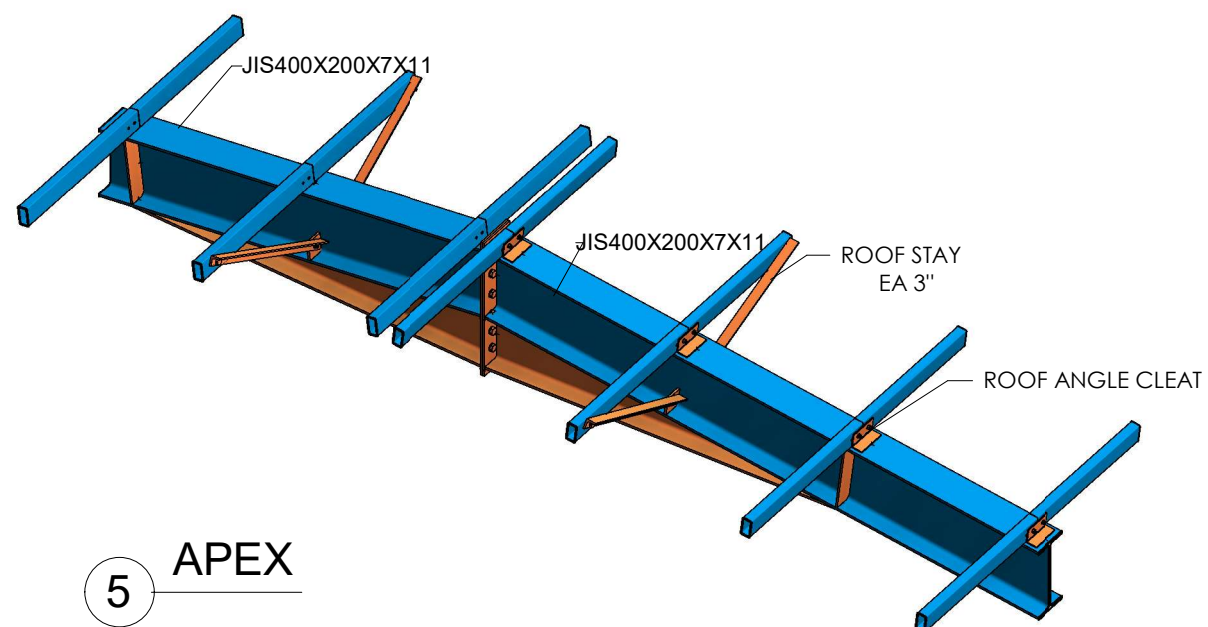




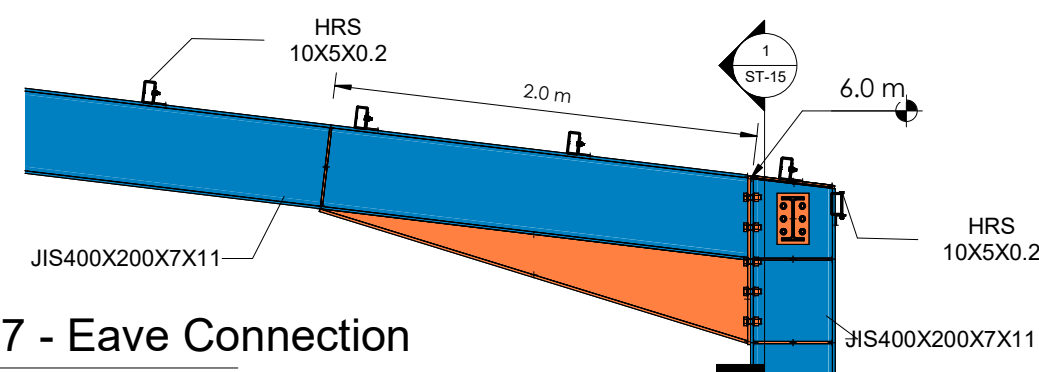
1 Section 7 For Grid (H-L)
1 : 70



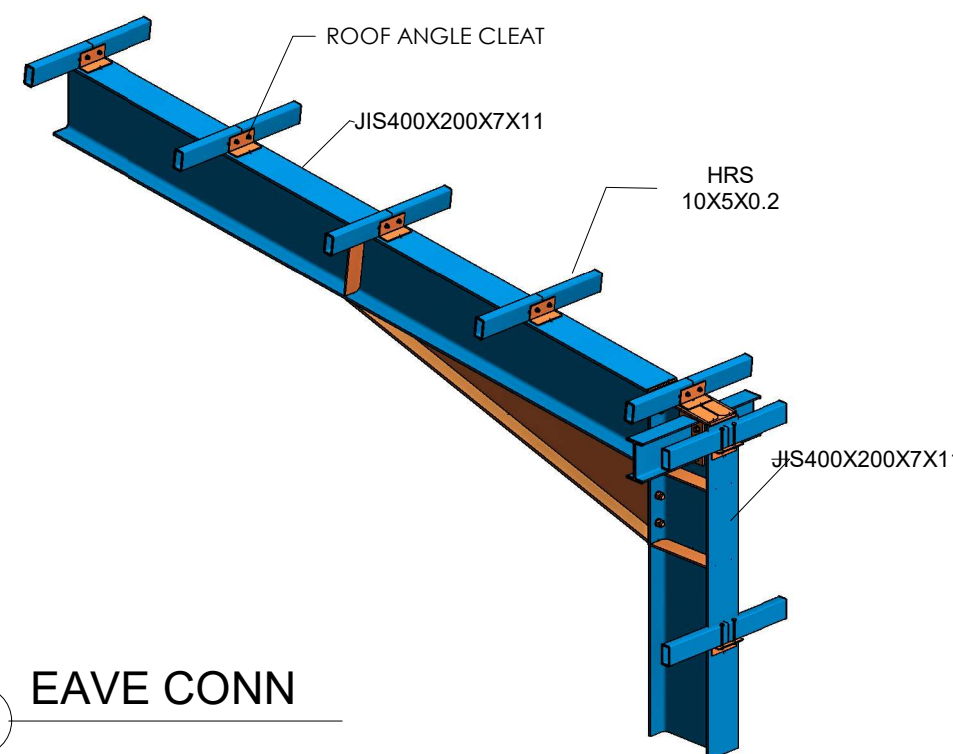
3 Section 7 -Apex Connection
1 : 35





5 APEX



2 Section 7 - Eave Connection
1 : 25




4 EAVE CONN

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DOUBLE QTC ENGINEERING

PROPERTY OF :
 Italian Agency for Development
 Cooperation - SDN

PROJECT NAME :
 Project Name

LOCATION :
 Enter address here

ARCHITECT :
 ENG.Author


STRUCTURAL ENGINEER :
 ENG.IBRAHIM MOHAMED IBRAHIM

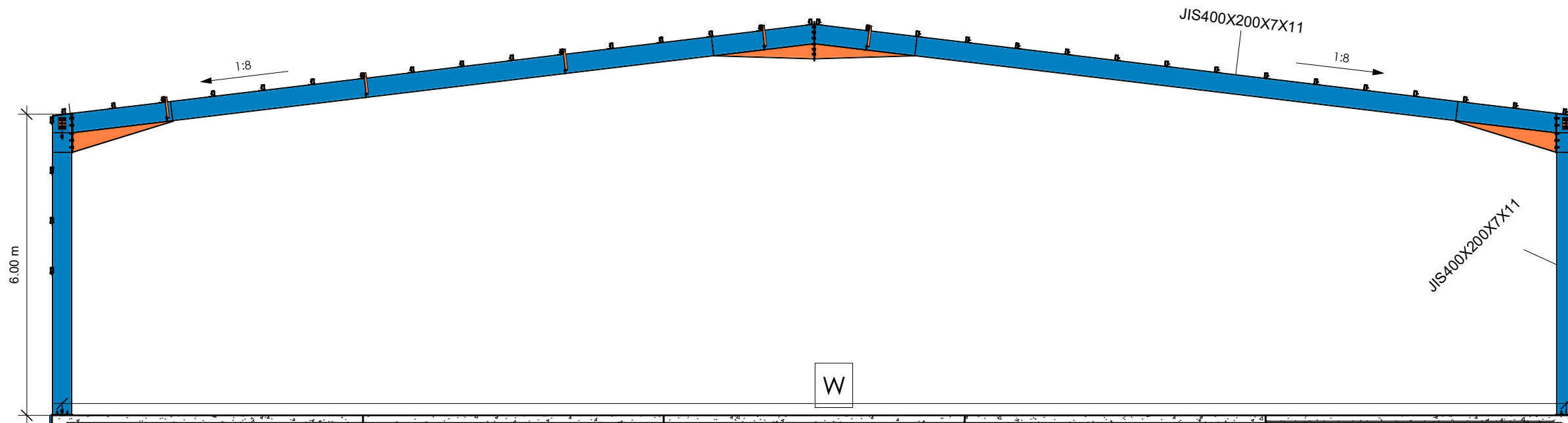
CHECKED BY :
 ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :
 FRAME @ GRID (H-L)

INDEX :
 ST-08

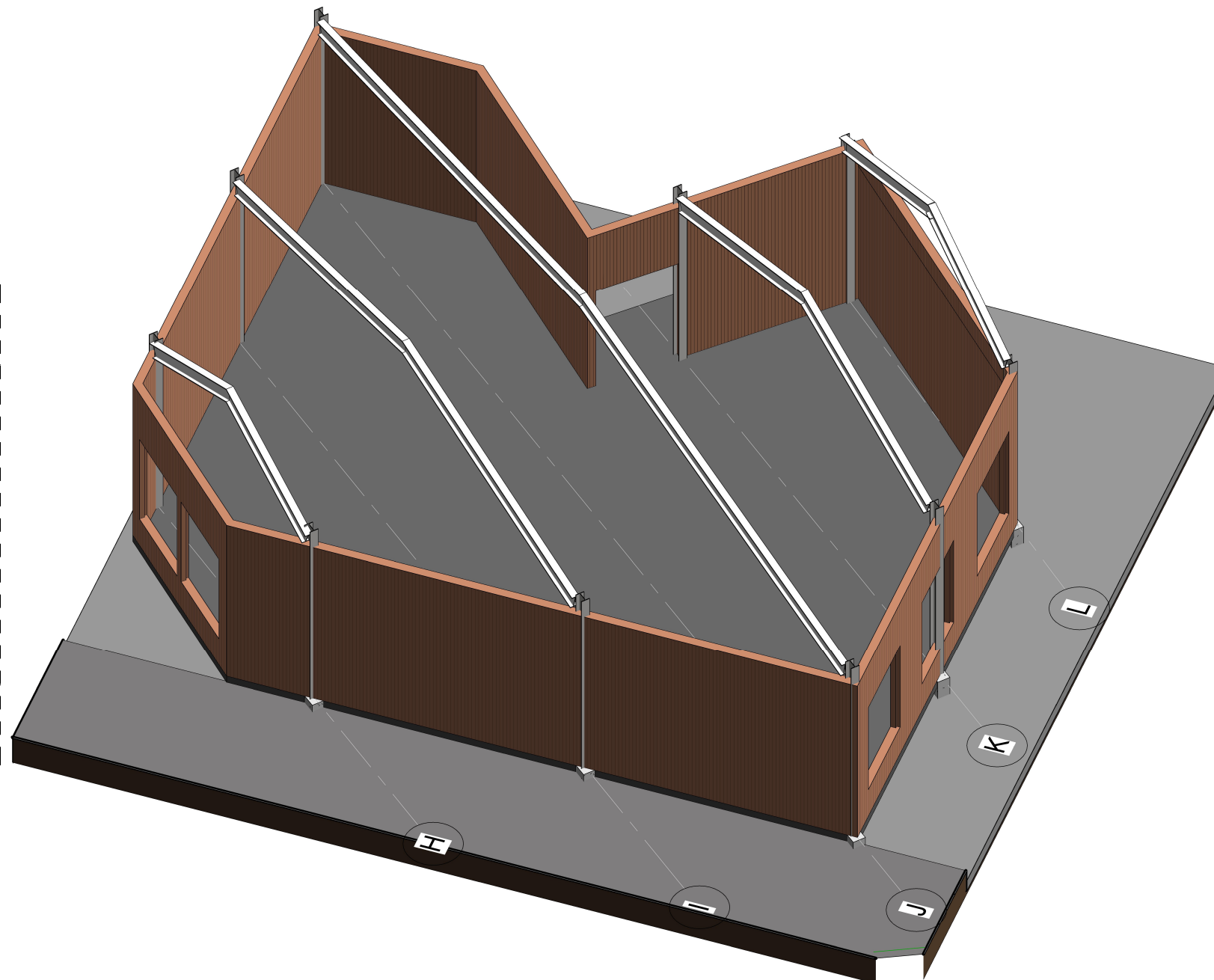
SCALE :
 As indicated





1 Section 7 For Grid (H-L)
1 : 70

GRID	WIDTH DIMENSION W
H	6.65 m C/C
I	14.85 m C/C
J	22.85 m C/C
K	11.05 m C/C
L	7.55 m C/C



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DOUBLE QTC ENGINEERING

PROPERTY OF :
 Italian Agency for Development Cooperation – SDN

PROJECT NAME :
[Project Name](#)

LOCATION :
[Enter address here](#)

ARCHITECT :
[ENG.Author](#)

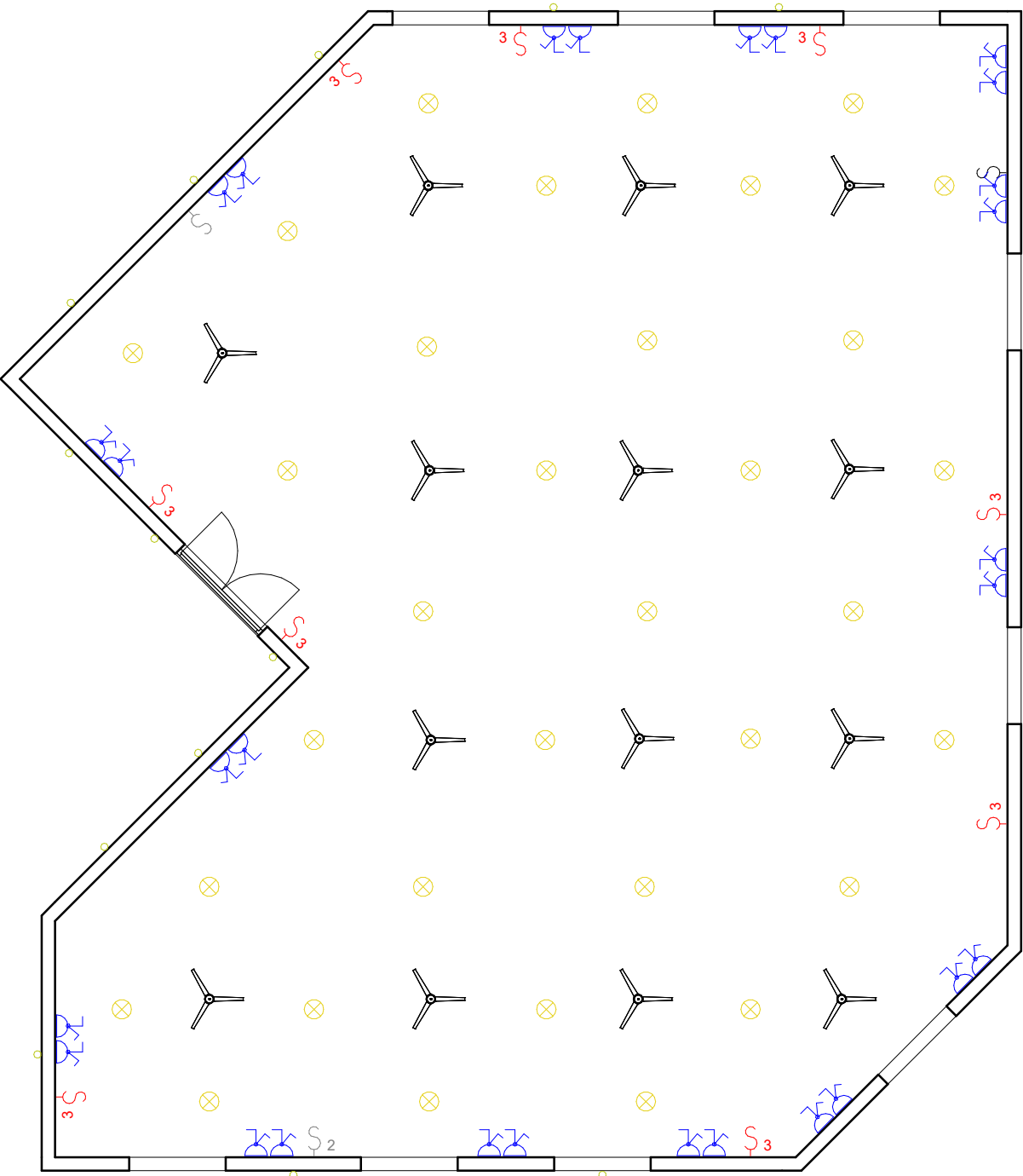
STRUCTURAL ENGINEER :
[ENG.Designer](#)

CHECKED BY :
[ENG. AMRAN MOHAMMED OTHMAN](#)

DRAWING TITLE :
[FRAME @ GRID \(H- L\)](#)

INDEX :
 ST-09

SCALE :
 1 : 70



1 D
1 : 100



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13 Project St. no 33 Amarat, House no 25
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SYMPOL	DESCRIPTION
Sup Distribution Board	
Main Distribution Board	
Fan	
Down Light	
Wall Light	
Single Switch	
Double Switch	
3-Way Switch	
Double Socket	
Exhaust Fan	

PROGRAM TITLE :
T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :
DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

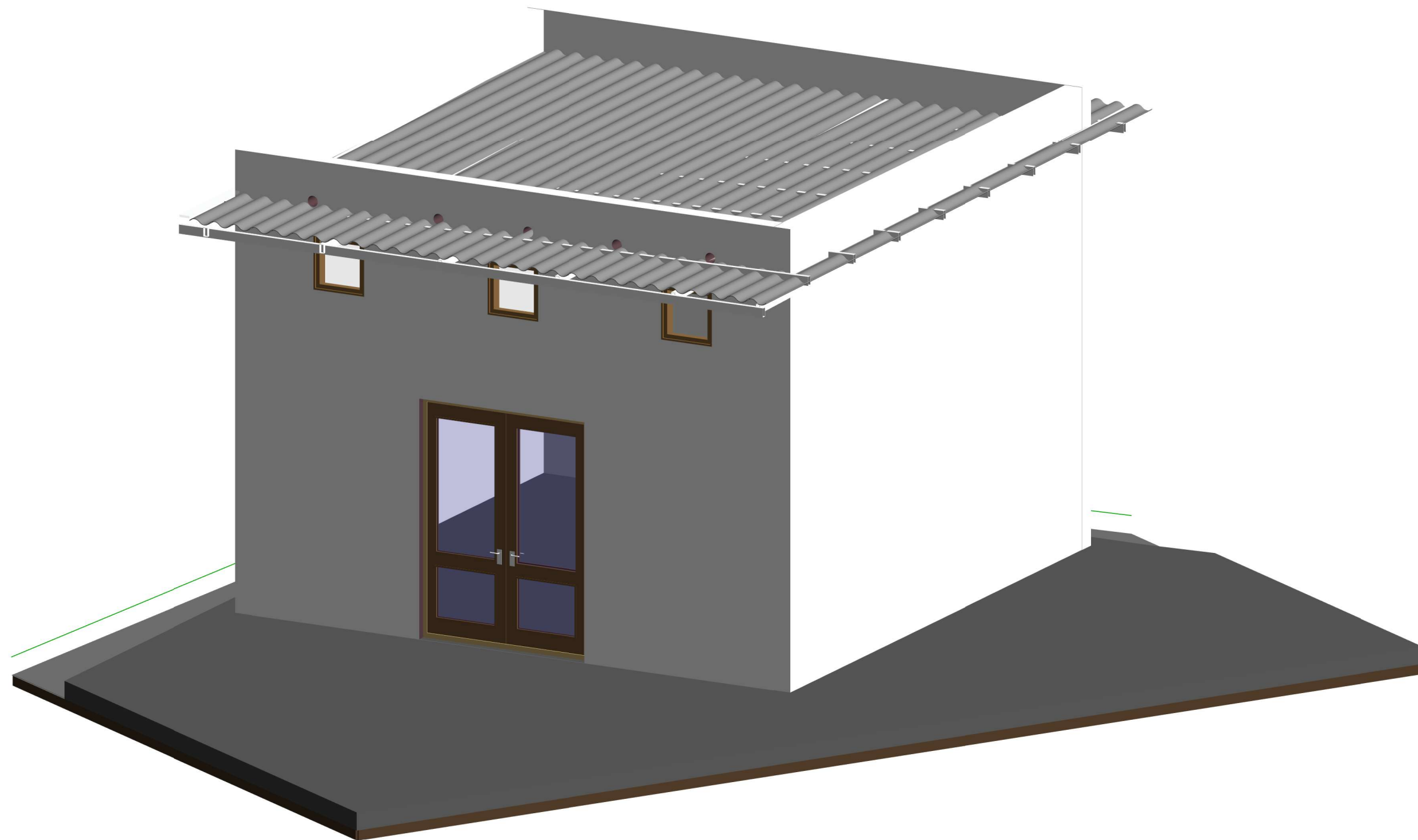
LOCATION :
AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :
ENG.Rayan Ahmed
CHECKED BY :
ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :
Ground Floor Electrical Plan

DATE : Issue Date

INDEX :	SCALE :	
ELE.101	As indicated	



ELECTRICAL ROOM



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13 Project St. no 33 Amarat, House no 25
Block 12 K-east Khartoum, SUDAN

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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

COVER PAGE

DATE: April - 2022

INDEX :

A0

SCALE :



Sheet List

Sheet Number	Sheet Name
A0	COVER PAGE
A00	SHEET LIST
A01	Electrical Room Plan
A02	Electrical Room Elevation
A03	Electrical Room Section
ST01	GENERAL 3D
ST02	GRADE BEAM PLAN
ST03	Walls Plan
ST04	FOUNDATION SECTION & Details
ST05	ROOF PLAN
ST06	Roof Installation Method

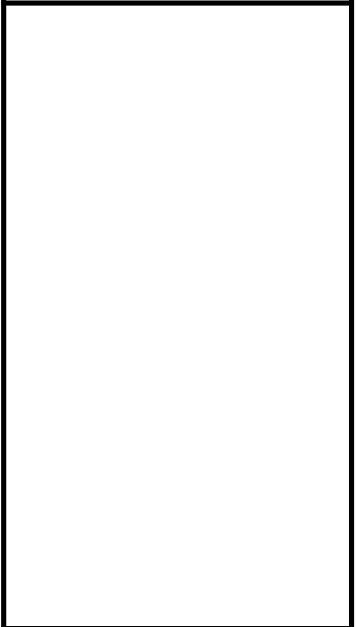


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PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

SHEET LIST

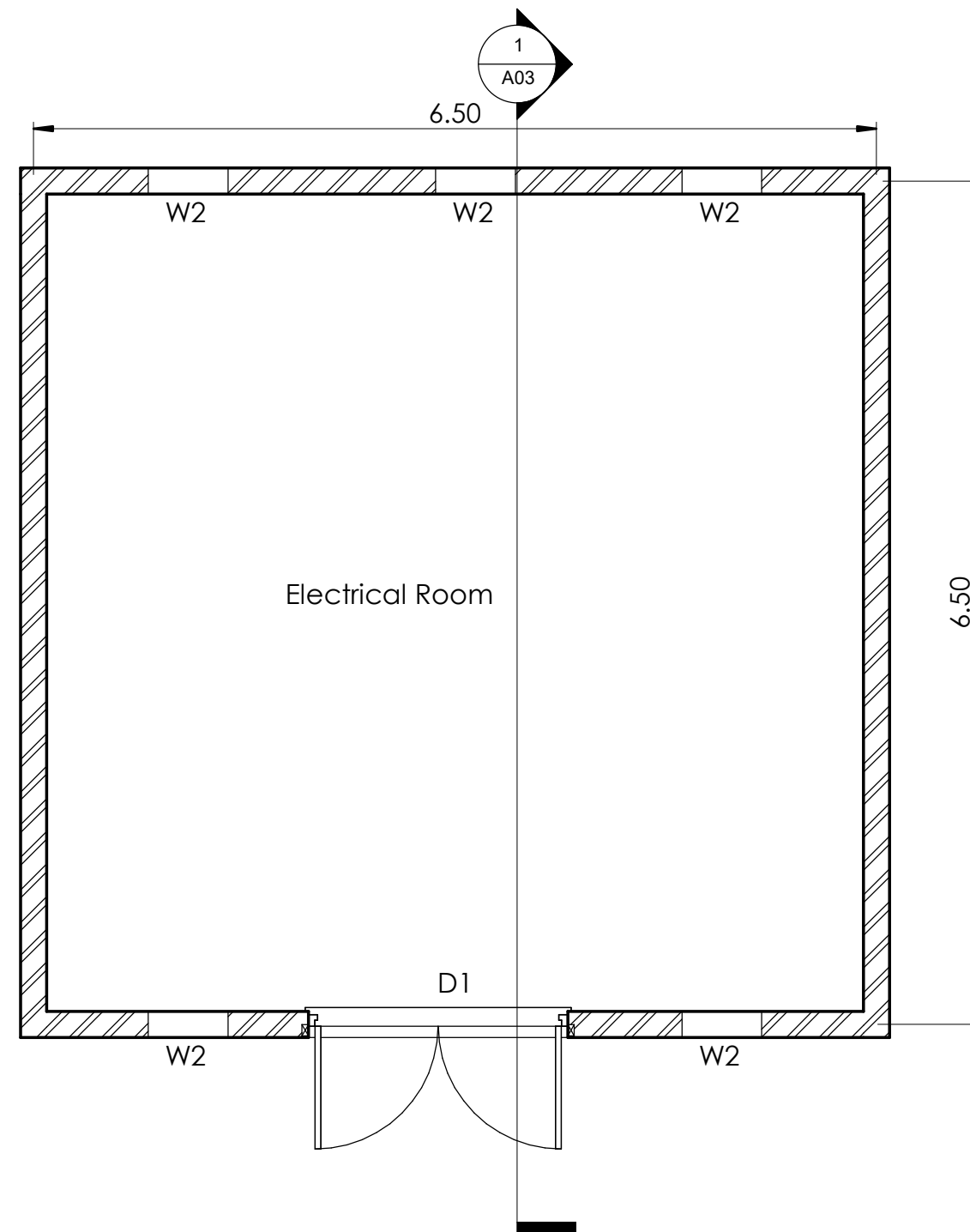
DATE: April - 2022

INDEX :

A00

SCALE :





1 Electrical Room
1 : 50



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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

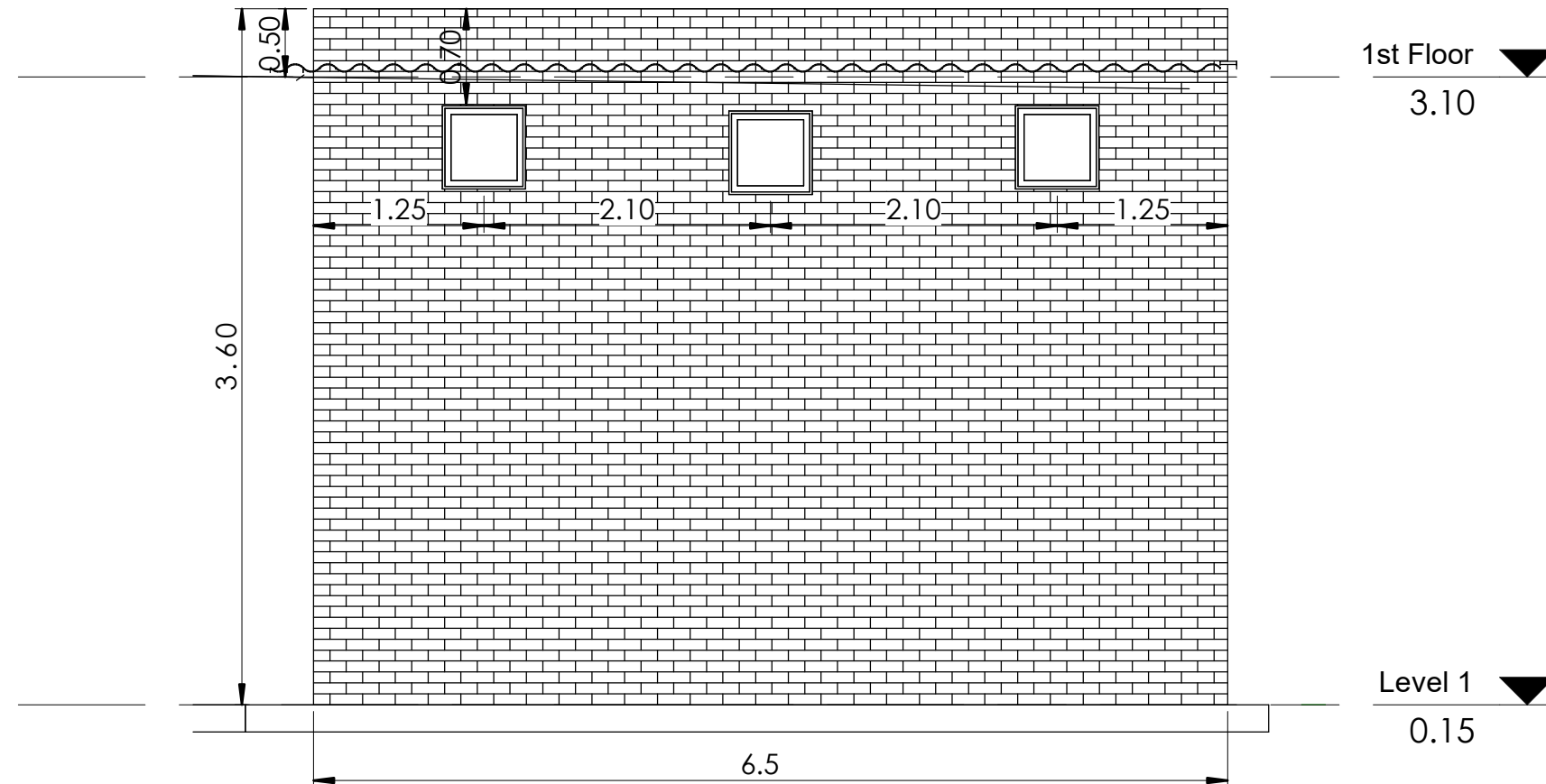
Electrical Room Plan

DATE: April - 2022

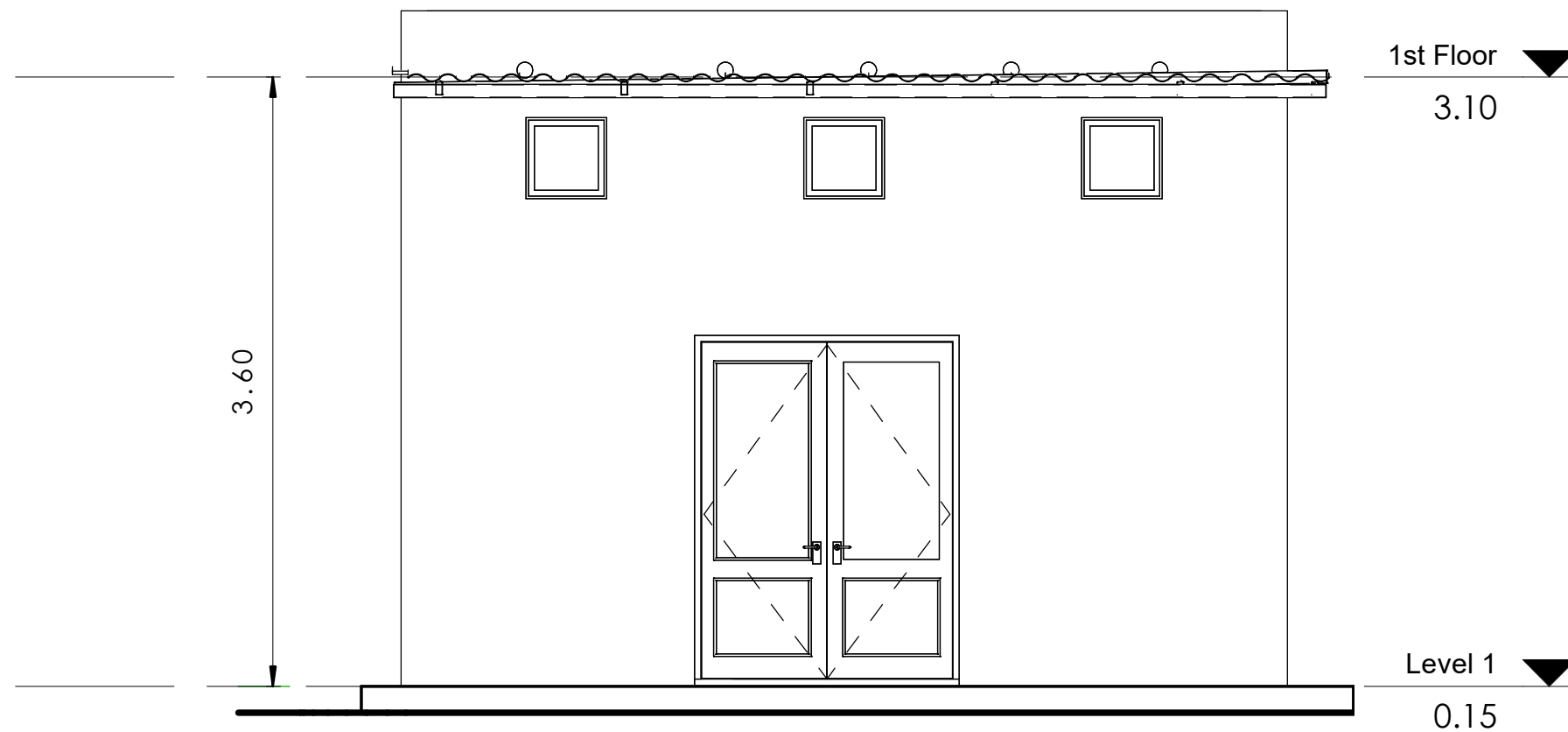
INDEX: SCALE:

A01 1 : 50





1 Elevation 3 - a
1 : 50



2 Elevation 1 - a
1 : 50



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13 Project St. no 33 Amarat, House no 25
Block 12 K-east Khartoum, SUDAN

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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Electrical Room Elevation

DATE: April - 2022

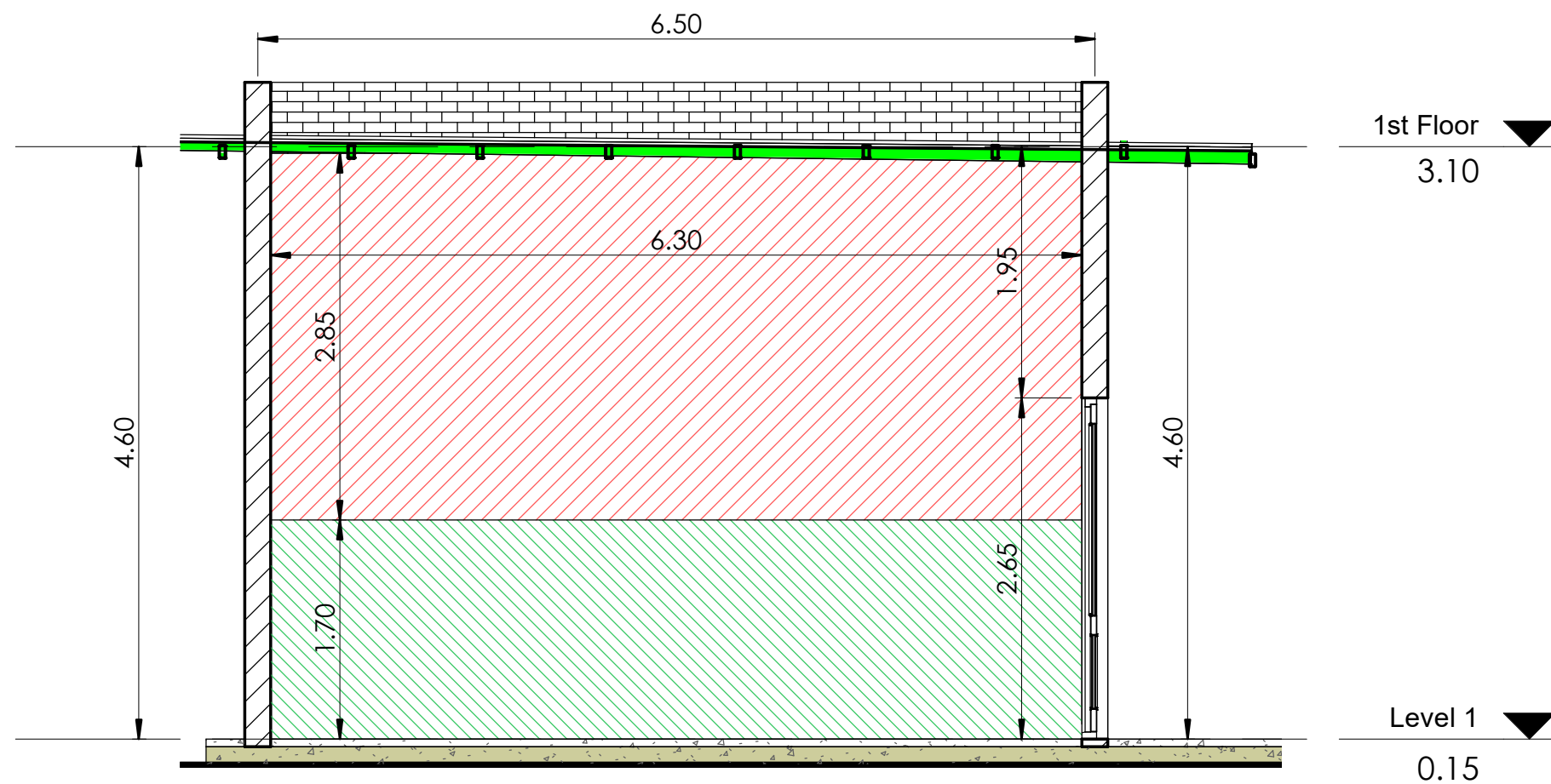
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A02

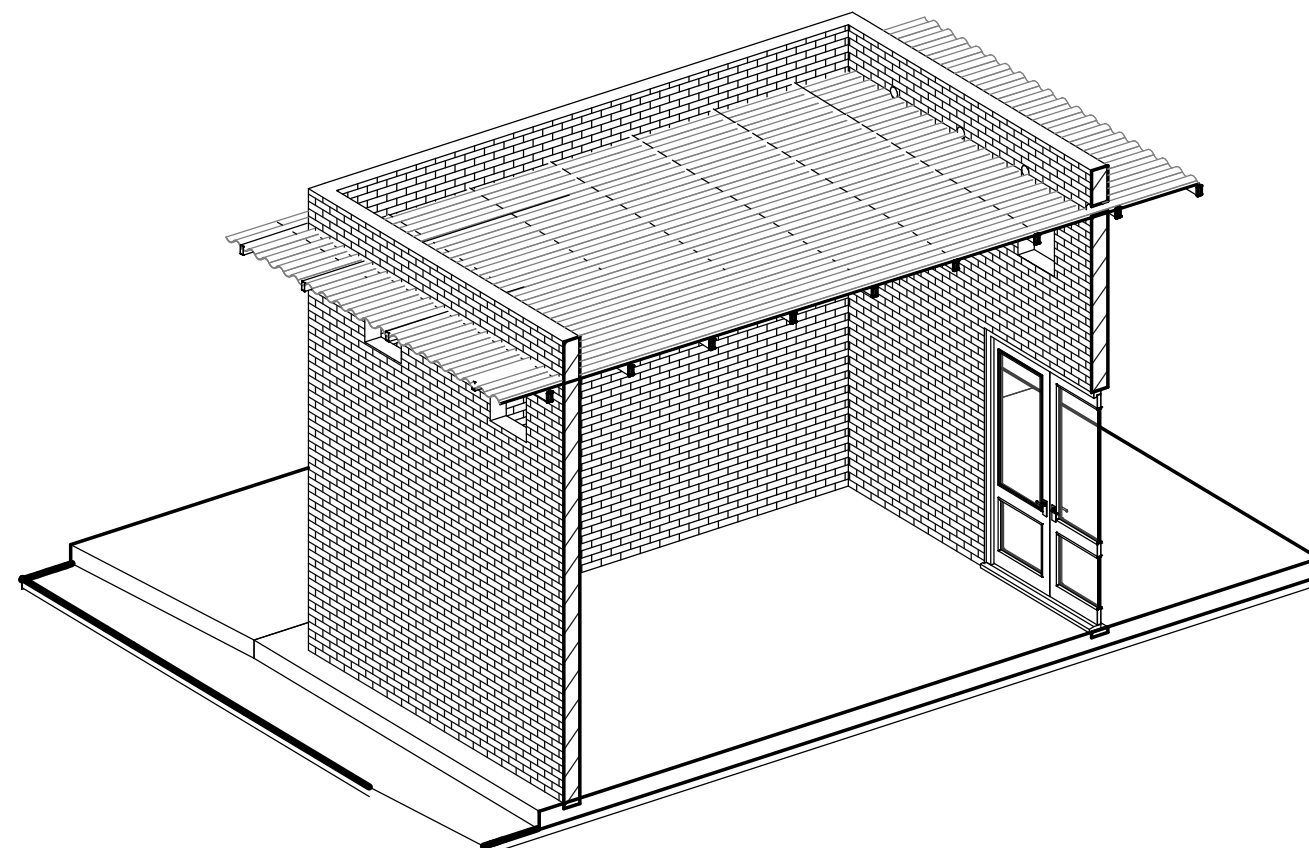
SCALE :

1 : 50





1 Section 11
1 : 50



2 ELECTRICAL ROOM Sec.



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DOUBLE QTC ENGINEERING

LEGEND

	Emulsion Paint (internal) from 1.70m to false ceiling
	Glossy Oil Paint (internal) from Floor to 1.70m
	Compacted Soil (t=0.20)
	Screed Concete
	False Ceiling
	RHS 5X10 Steel Profile

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Electrical Room Section

DATE: April - 2022

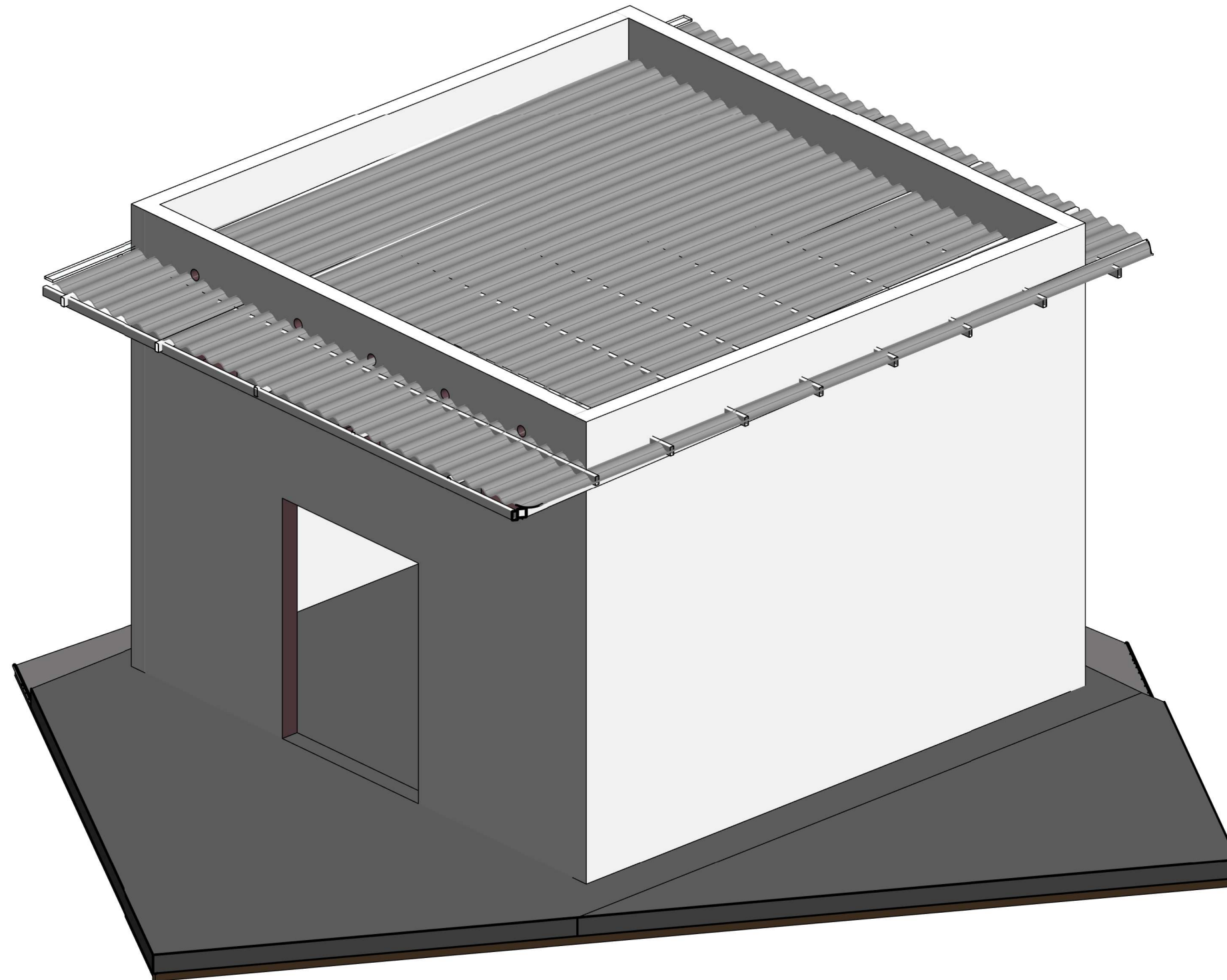
INDEX :

A03

SCALE :

As
indicated





1

ELECTRICAL ROOM



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Block 12 K-east Khartoum, SUDAN

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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

GENERAL 3D

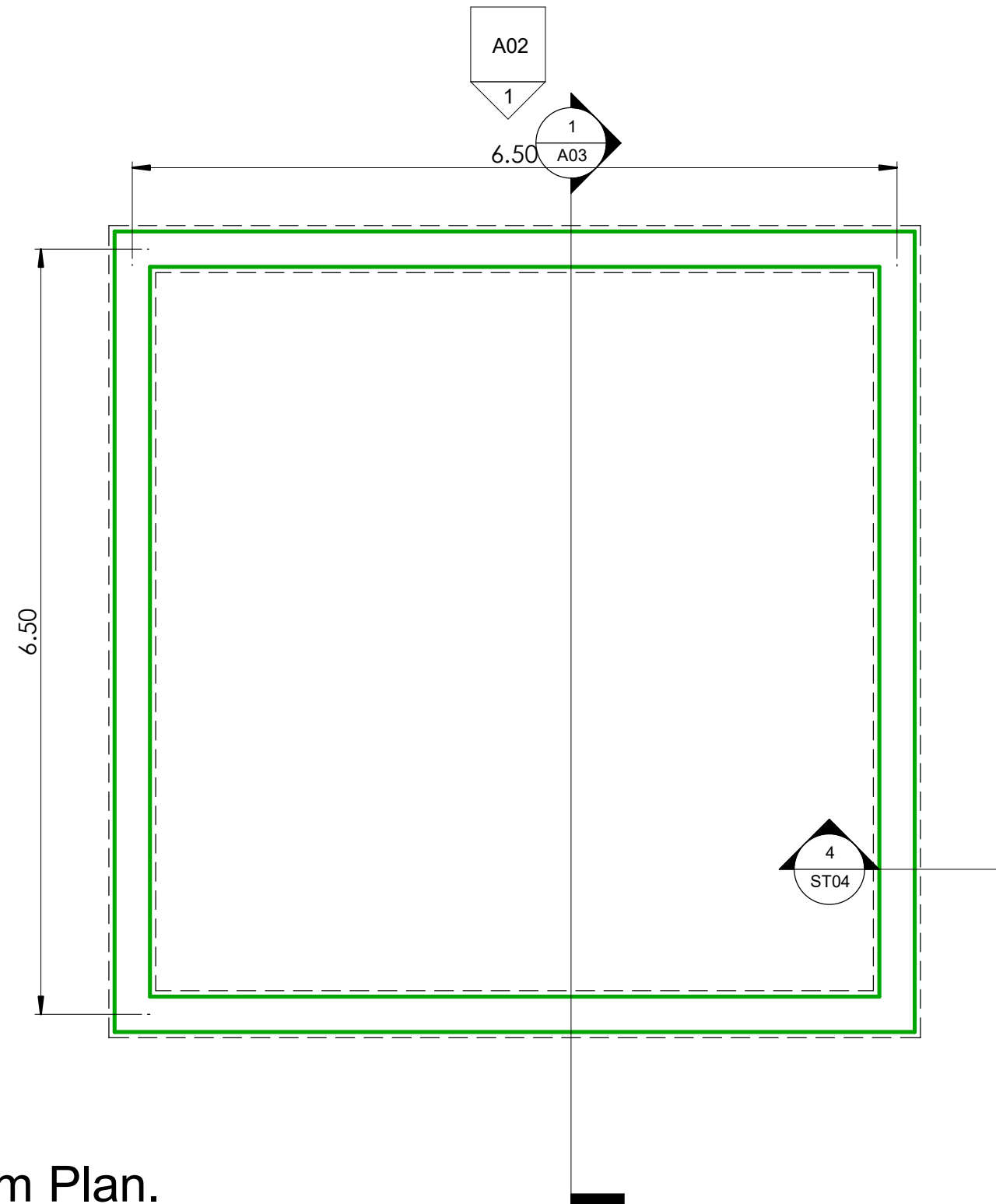
DATE: April - 2022

INDEX :

ST01

SCALE :





1 Grade Beam Plan.
1 : 50



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EMAIL: DQTC.ENGINEERING@GMAIL.COM



DOUBLE QTC ENGINEERING

Legend

	Grade Beam
	Strip Foundation Boundary

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

GRADE BEAM PLAN

DATE: April - 2022

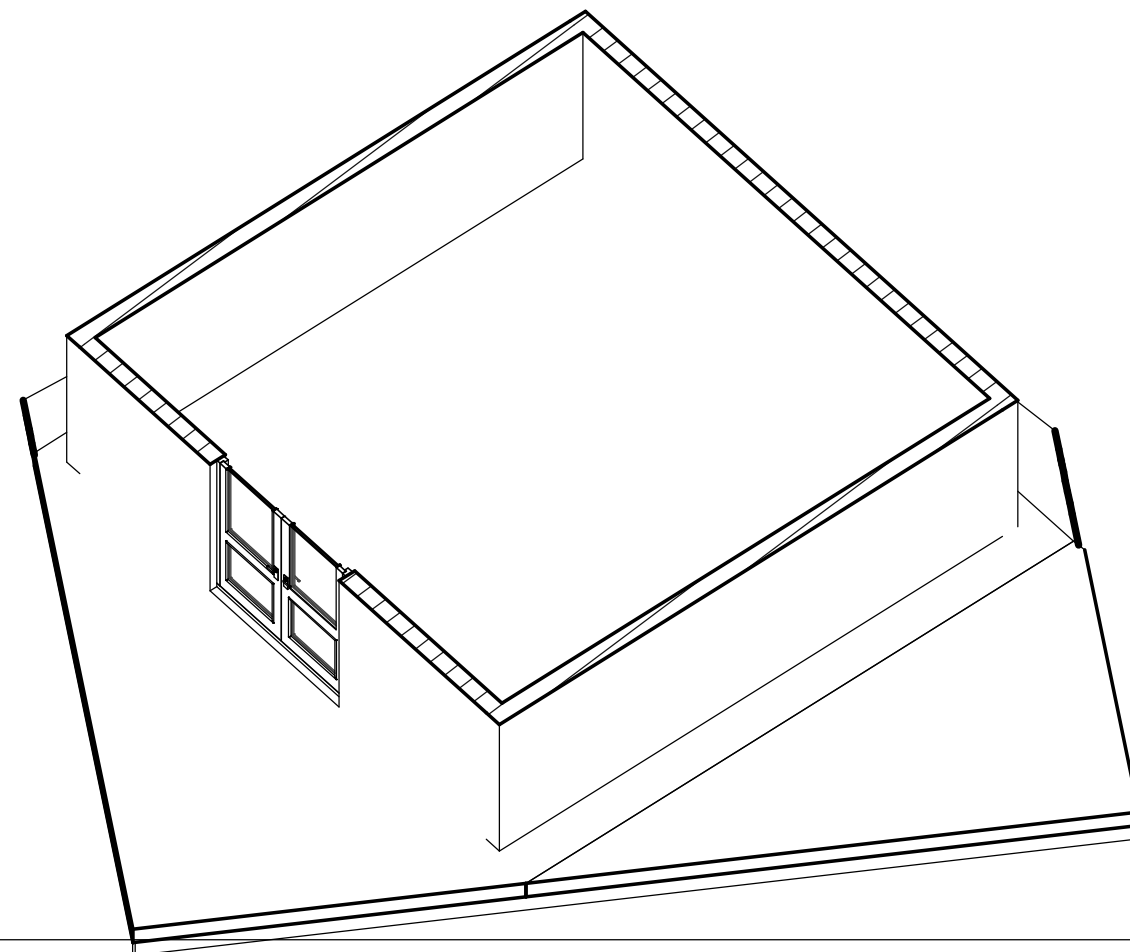
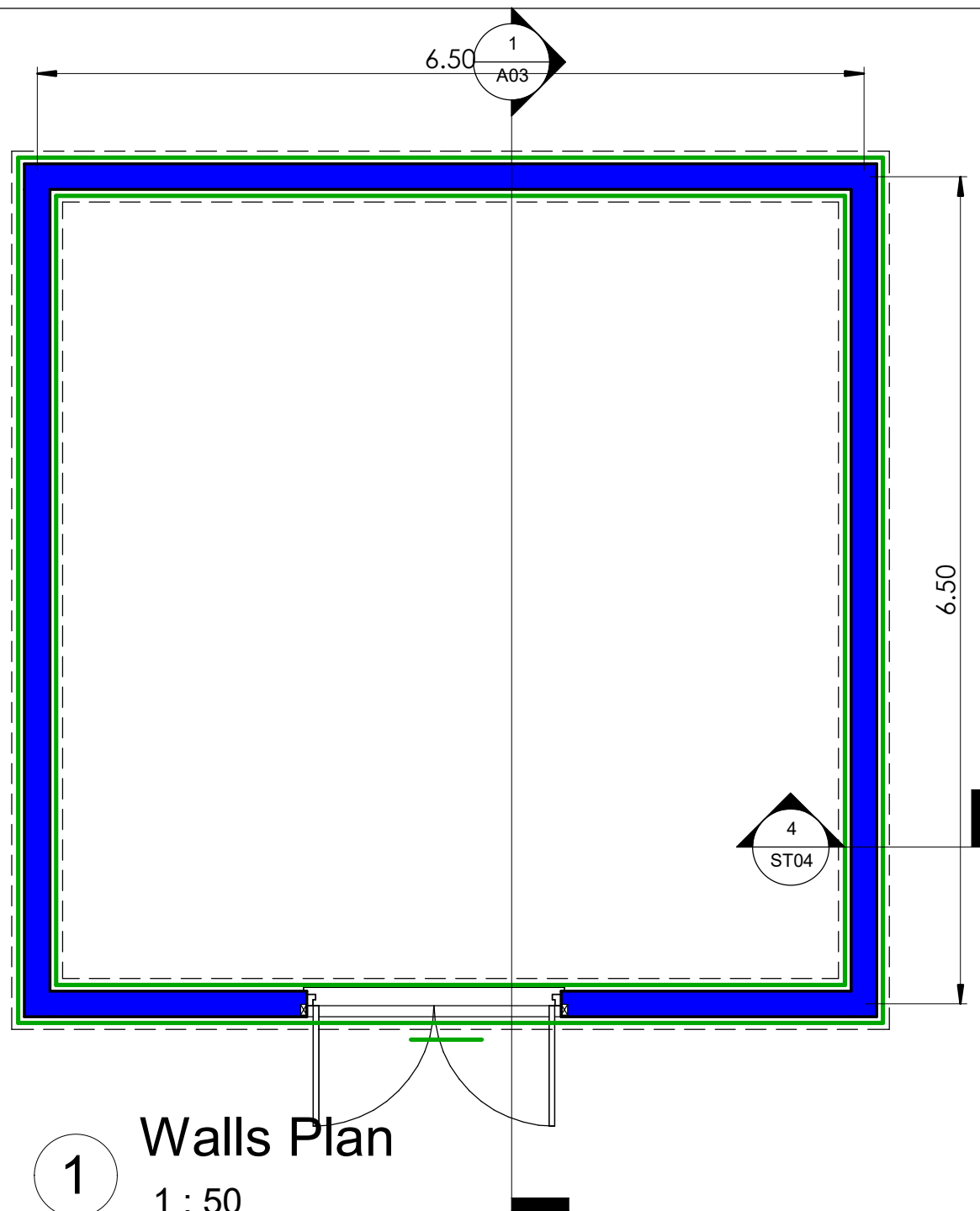
INDEX :

ST02

SCALE :

As
indicated





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Block 12 K-east Khartoum, SUDAN

AL-Amarat Mohamed Najeeb Street, Khartoum

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DOUBLE QTC ENGINEERING

Legend

	Grade Beam
	Strip Foundation Boundary
	Walls

PROGRAM TITLE :

[T05-EUTF-HOA-SDN-73-01](#)

PROJECT TITLE :

[DESIGN \(AHS\) IN AL FASHER,
NORTH DARFUR STATE](#)

LOCATION :

[AL FASHER, NORTH DARFUR STATE](#)

STRUCTURAL ENGINEER :

[ENG.Designer](#)

CHECKED BY :

[ENG. AMRAN MOHAMMED OTHMAN](#)

DRAWING TITLE :

[Walls Plan](#)

DATE: [April - 2022](#)

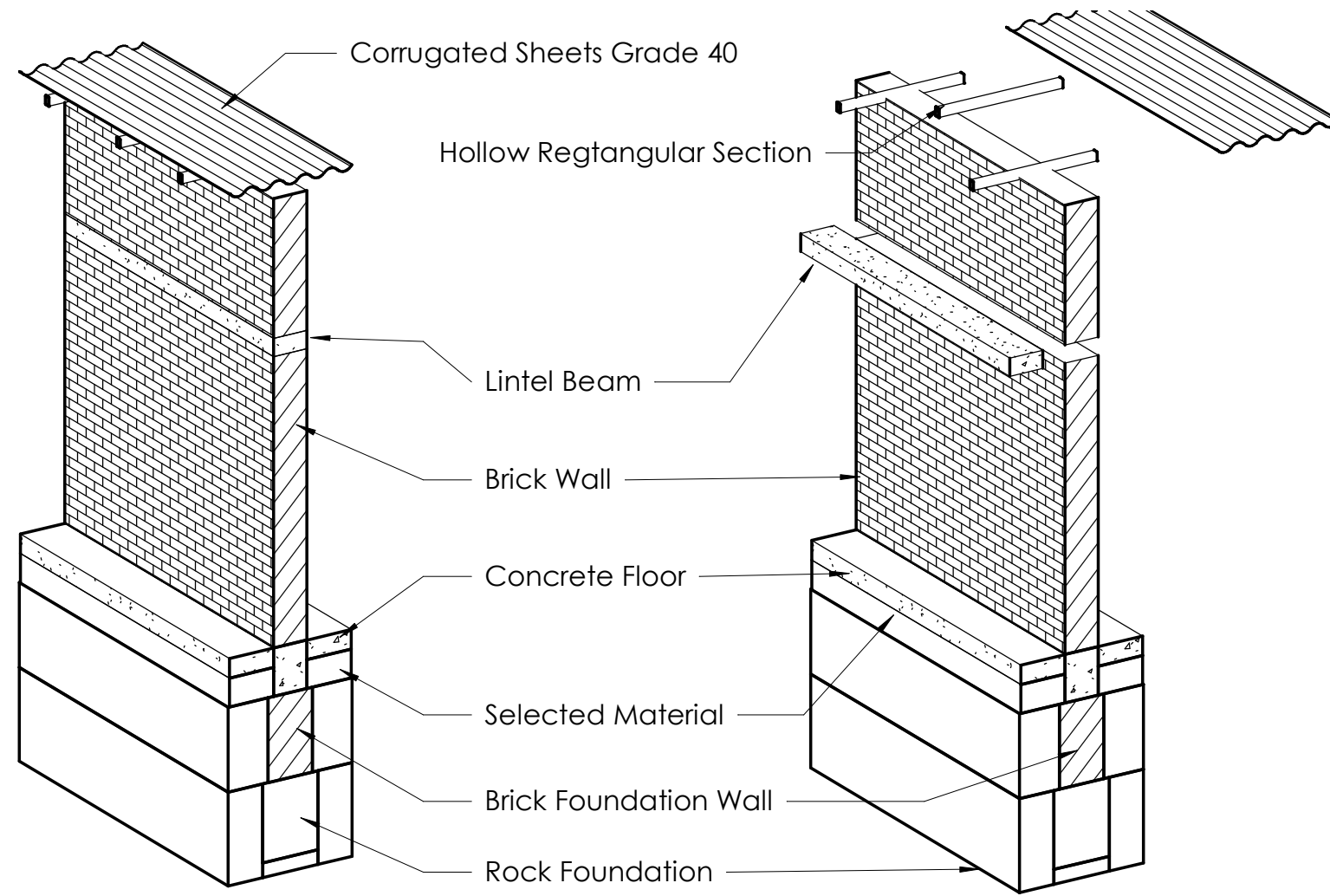
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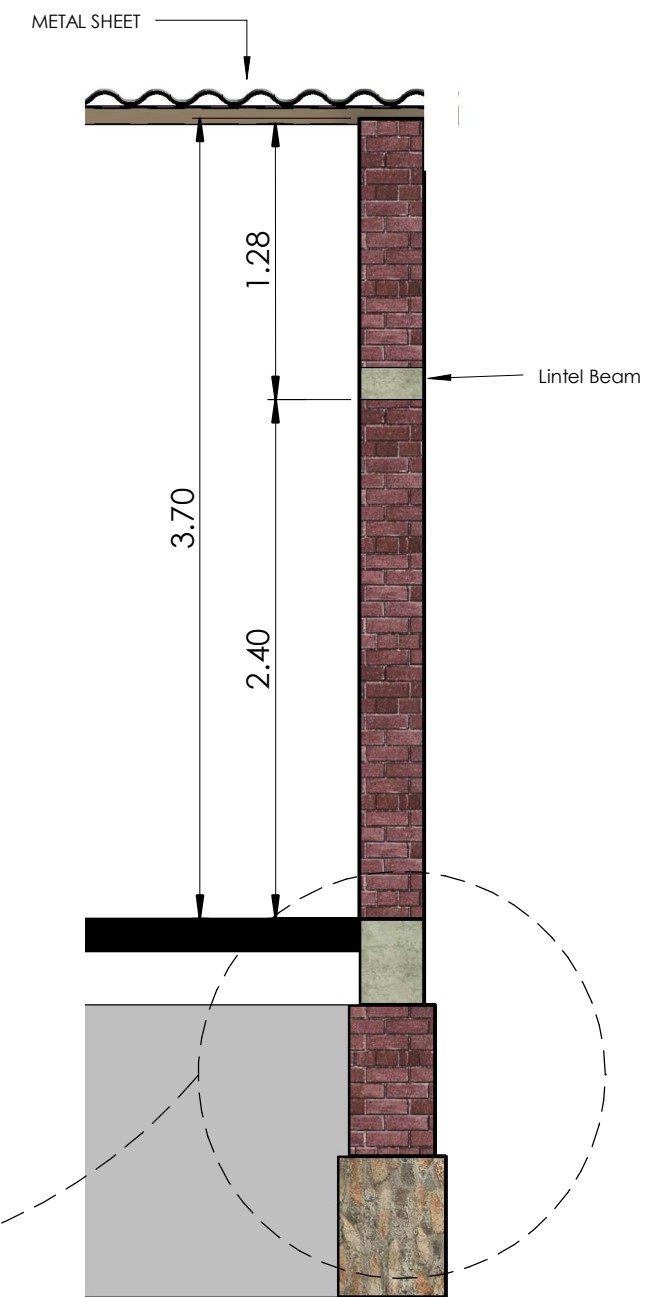
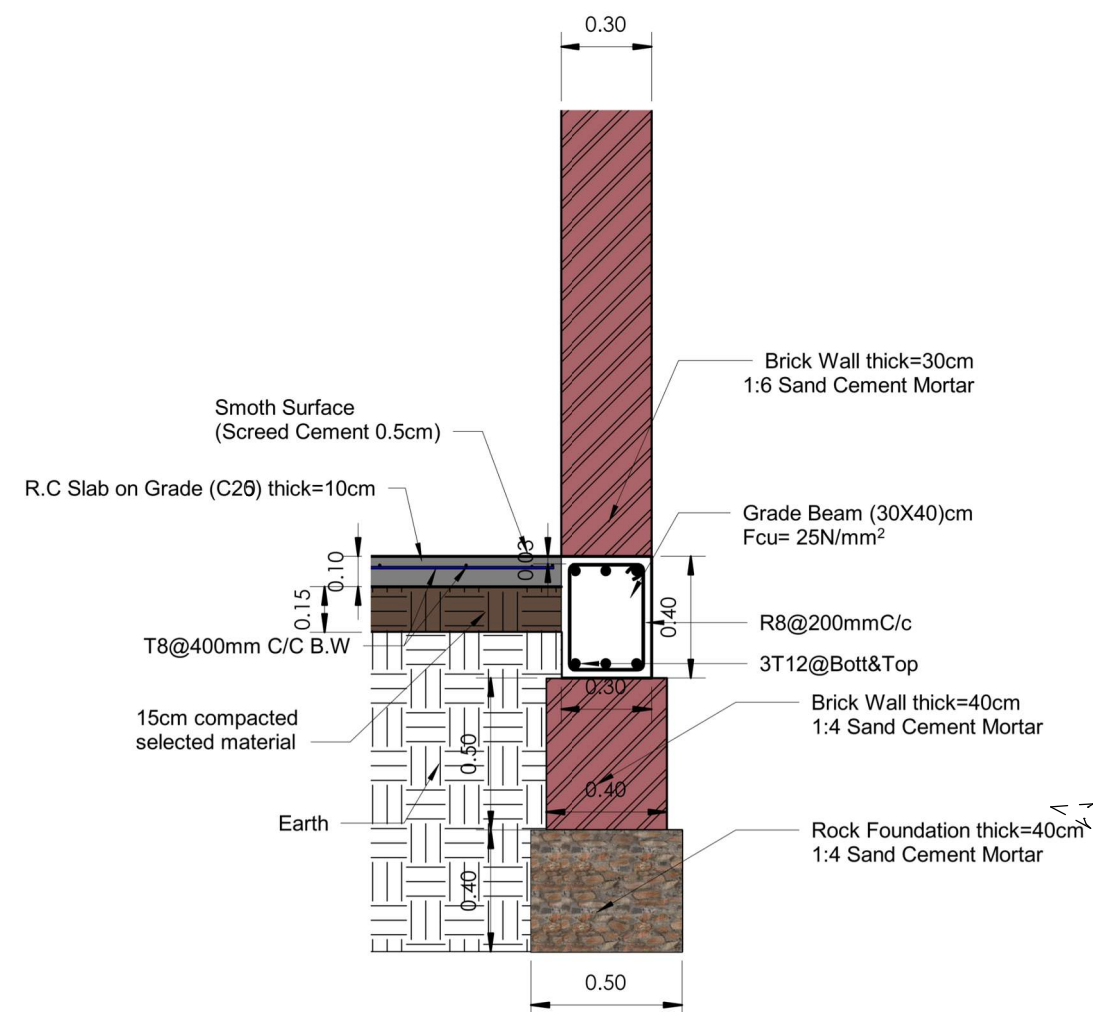
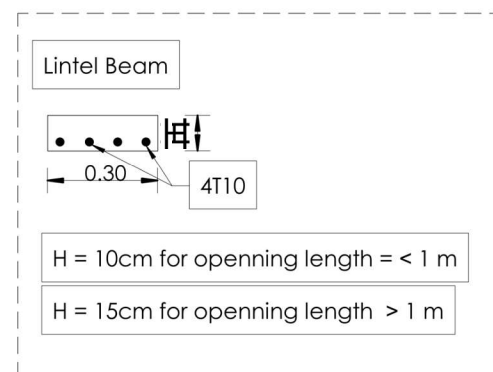
SCALE :

[As
indicated](#)





3 3D Section



2 Section 10 1 : 35



AICS-Italian Agency for Development
Cooperation – SDN
13 Project St. no 33 Amarat, House no 25
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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

FOUNDATION SECTION & Details

DATE: April - 2022

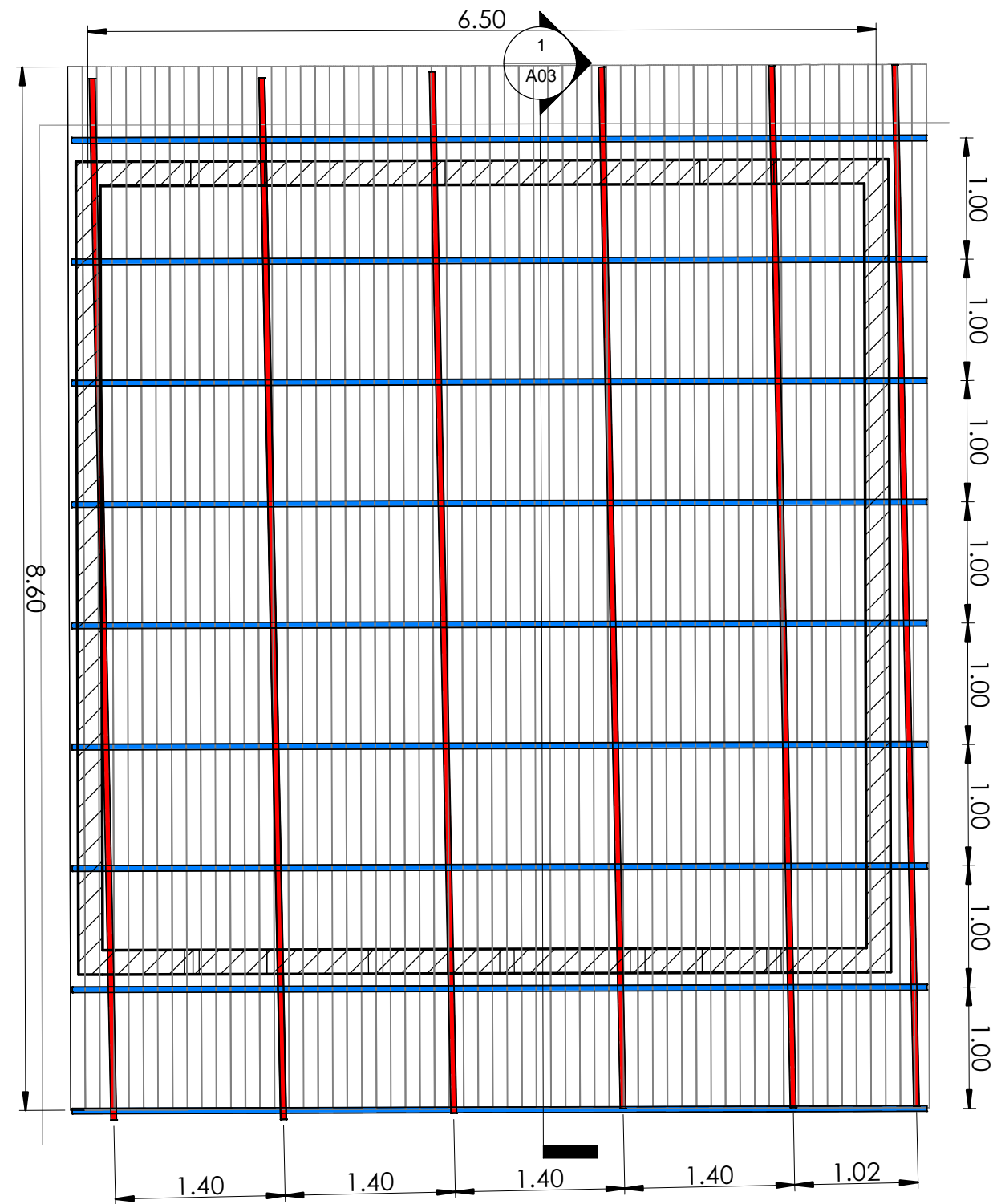
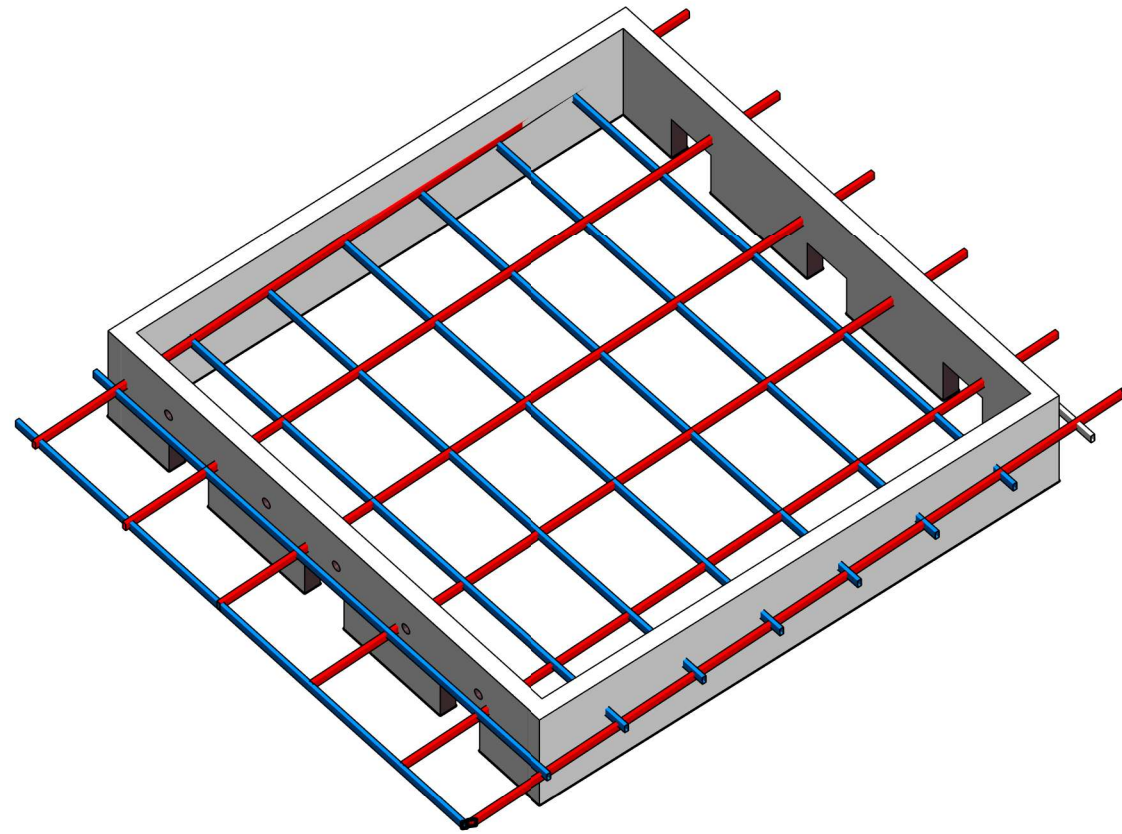
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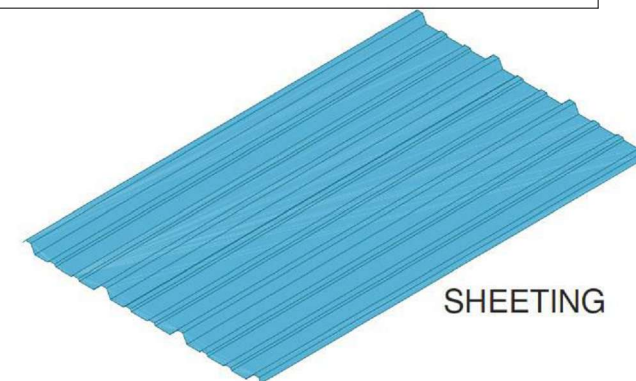
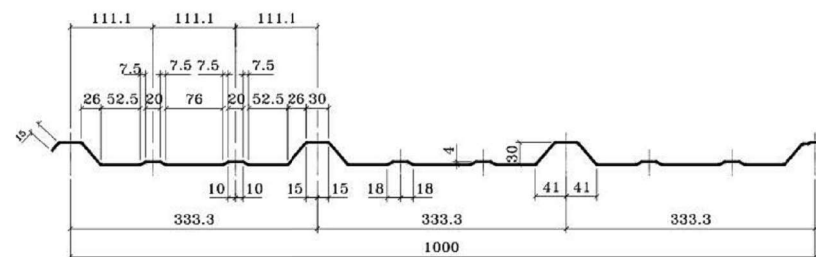
SCALE :

As
indicated





Note :
All the Roof sheeting Panel Must be Grade 40



SHEETING



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DOUBLE QTC ENGINEERING

Legend

	H.R.S 5X10X0.2
	H.R.S 4X8X0.2

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

AL FASHER, NORTH DARFUR STATE

STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

ROOF PLAN

DATE: April - 2022

INDEX:

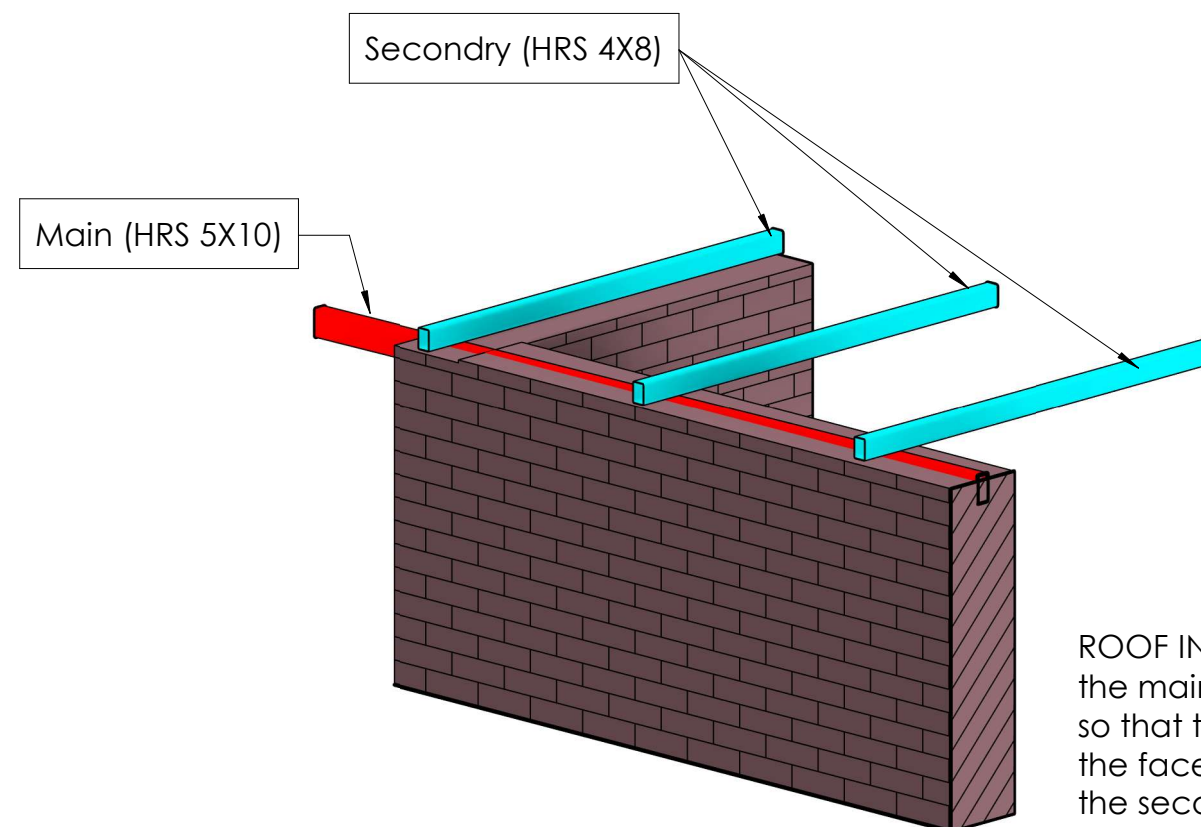
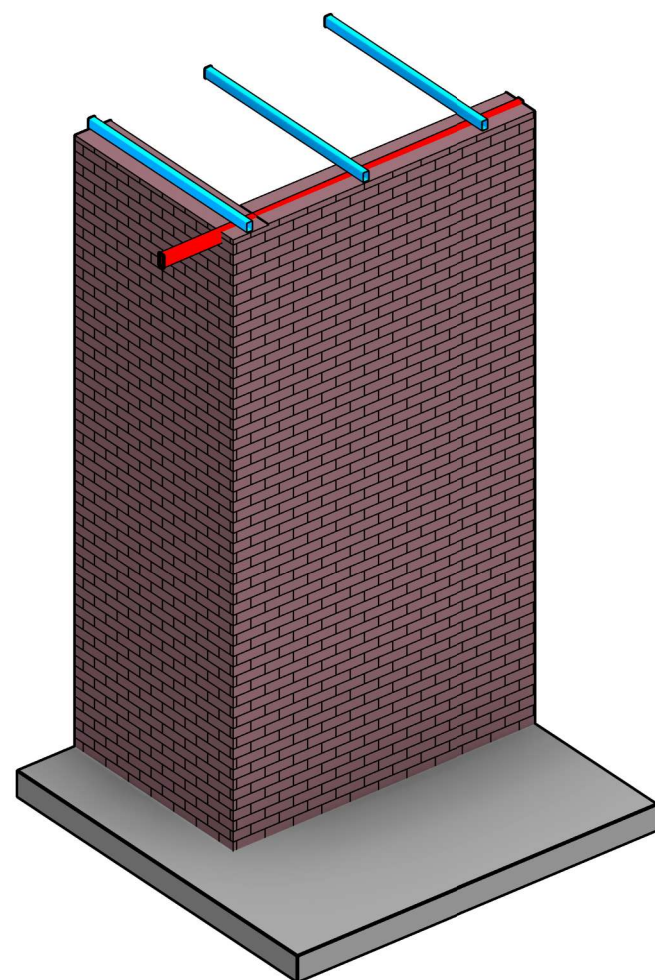
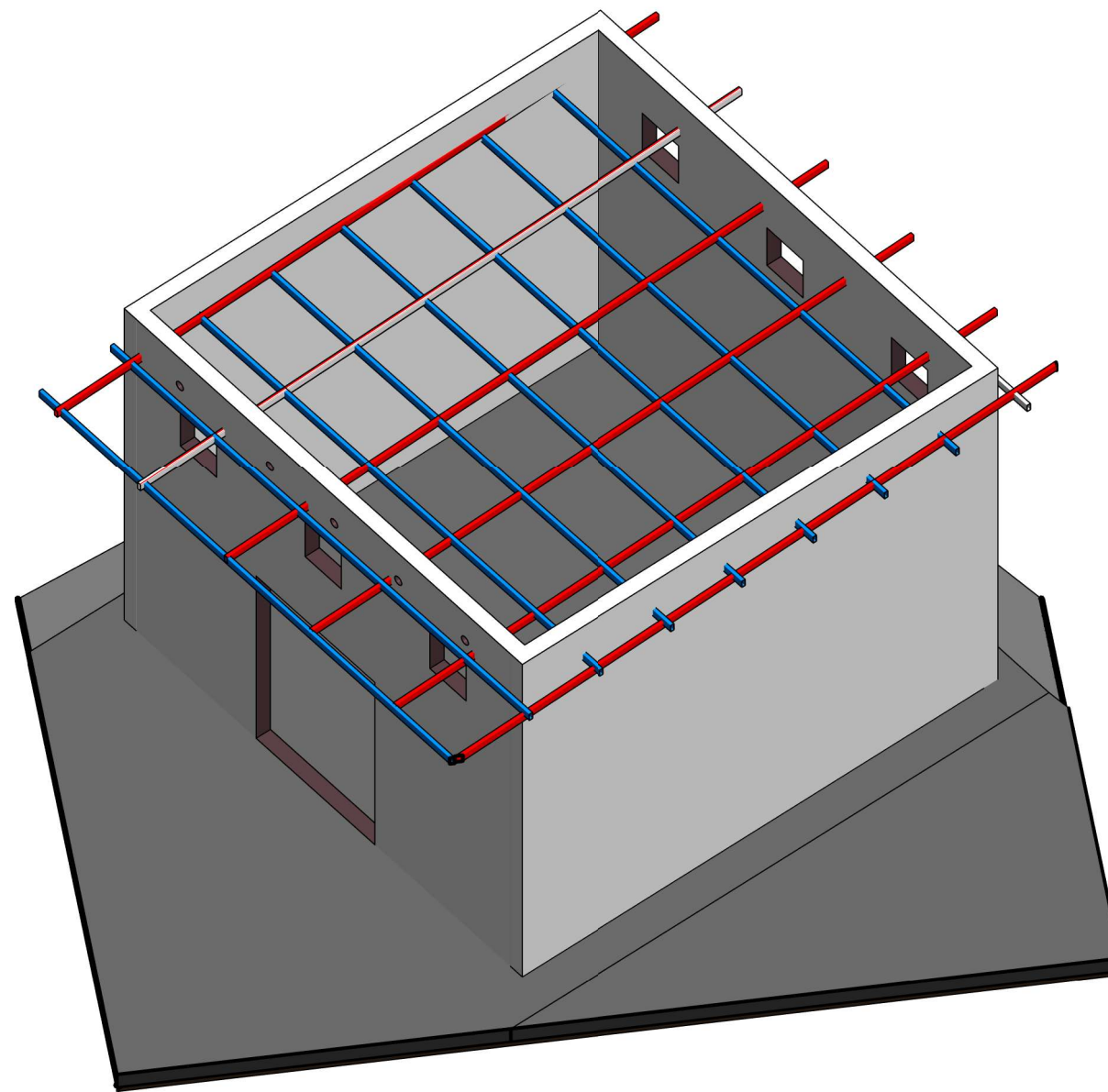
ST05

SCALE:

As
indicated



1 Roof Fixidity Method.



ROOF INSTALLATON METHOD:
the main (HRS 5X10) is installed inside the walls
so that the face of the upper (HRS 5X10) is with
the face of the upper wall,
the secondry (HRS 4X8) is installed by welding
on the main (HRS 5X10) thus is stable above the wall



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DOUBLE QTC ENGINEERING

PROGRAM TITLE :

T05-EUTF-HOA-SDN-73-01

PROJECT TITLE :

DESIGN (AHS) IN AL FASHER,
NORTH DARFUR STATE

LOCATION :

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STRUCTURAL ENGINEER :

ENG.Designer

CHECKED BY :

ENG. AMRAN MOHAMMED OTHMAN

DRAWING TITLE :

Roof Installation Method

DATE: April - 2022

INDEX :

ST06

SCALE :

