



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with “A” grade by NAAC | 12B Status by UGC | Approved by AICTE

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119

www.sathyabama.ac.in

SCHOOL OF BUILDING AND ENVIRONMENT
DEPARTMENT OF ARCHITECTURE
PRACTICAL TRAINING PORTFOLIO (SAR4063)
DEC 2022

Name of the Student : MANISH JOTHI .G

Batch : 2019 - 2024

Reg No. : 39210045

Semester : VII



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SCHOOL OF BUILDING AND ENVIRONMENT

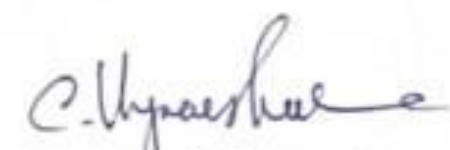
DEPARTMENT OF ARCHITECTURE

VIVA-VOCE EXAMINATION

This is to certify that the practical training SAR 4063 is the work of **MANISH JOTHI.G** who had undergone training in **MUD HANDS EARTH ARCHITECTURE** and has been monitored by the continuous assessment during JUNE 2022 to NOVEMBER 2022.


Dr. Devyani Gangopadhyay
DEAN

Submitted for Viva voce Examination held on 13/12/22


Internal Examiner


External Examiner



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DECLARATION

I, **MANISH JOTHI G**, by declaring that the Training Report **JUNE 2022 to OCTOBER 2022** done by me under the guidance of **Ar. GOUTHAMA** is submitted in partial fulfillment of the requirements for the completion of a practical training session.

DATE : 13.12.2022

PLACE : BANGALORE



SIGNATURE OF CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to the Board **of Management of SATHYABAMA** for their kind encouragement in doing this practical training and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr. Devyani Gangopadhyay**, Dean, School of Building and Environment and **Ar.Sarath Chandra Kanth**, Design Chair, Department of Architecture for having been a constant source of support and encouragement.

I wish to express my thanks to all Teaching and Non-teaching staff members of the Department who were helpful in many ways for the completion of the project.

I also wish to thank **Ar.GOUTHAMA**, for the experience of interning at their firm.

BONIFIDE CERTIFICATE



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Date: 24 May 2022

To whomsoever it may concern

As a part of the Academic requirement and the regulations of Sathyabama Institute of Science and Technology and the Council of Architecture, our student **MANISH JOTHI G (39210045)** is required to undergo professional training from the month of June 2022, for a minimum span of 90 working days in his VII semester. The training has to be done under a senior registered architect with a minimum of 5 years of professional experience.

The student will have to submit a documentation report (supported with copies of work done by him, duly attested by the Architect) of all the drawings and site related activities undertaken under the supervision of Principal architect at the end of training period to the institution. It is requested that **MANISH JOTHI G (39210045)** may be given an opportunity to undergo training in your Architectural firm.

Kindly send an appointment letter to the undersigned stating that the student has been selected as a trainee in your esteemed office.

Thanking you

Dr. Devyani Gangopadhyay

Dean, School of Building and Environment

Date: 13 june 2022
Place: Bangalore



JOINING LETTER

TO WHO SO EVER IT MAY CONCERN JOINING LETTER FOR INTERNSHIP

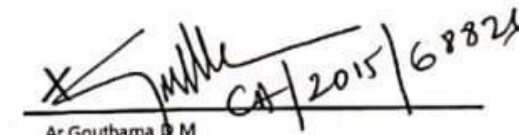
To,
Mr. Manish Jothi .G
Sathyabama institute of science and technology.

We are happy to inform you that you have been confirmed to the position of intern at Mud Hands with effect from june 2022 for a duration of 90 days.

We look forward to your association with Mud Hands and are confident that you will use the opportunity for further improving the growth of your career.

Warm regards,

Gouthama D.M.
Principal Architect


Ar. Gouthama D.M.
Principal Architect

COMPLETION CERTIFICATE



Date: 10/11/2022
Bangalore

INTERNSHIP COMPLETION CERTIFICATE

To,
The Dean,
Sathyabama university of science and technology,
Semmancheri, Chennai
Tamil Nadu -600119

This is to certify that Manish Jothi G Reg No- 39210045 has completed her practical training from 13-06-2022 to 30-10-2022 at Mud Hands, Bangalore.

he has undergone practical training in Architectural design and detail, preparation of 3D graphic visuals and site visits in various Architectural projects. he is proficient in computer software like Auto cad, Photoshop and Google Sketch-up.

During his tenure with us, we found him to be dedicated, punctual, hard working and honest.

We, at Mud Hands, wish him all success in him future endeavors.

Thanking You

Ar. Gouthama (CA/2015/68826)
Principal Architect



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DEPARTMENT OF ARCHITECTURE

PROFESSIONAL PRACTICAL TRAINING REPORT 2022

(Continuous progress report of the trainee architect for the period of One month in the office to submitted to HOD by the Trainee in Charge of the Organization)

1. Name of the office / organization : MUD HANDS
2. Address & Contact Number : NO. 549, 14th Cross, 26th Main Rd, 1st Phase J.P Nagar, Bengaluru, KA-560078
Ph: 9335085661
3. Name of the student : MANISH JOTHICA
4. Duration : From 13.06.2022 to 13.07.2022
5. Total No. of days : 22 days.

6. Evaluation of Performance criteria shall be on

^{*} Note: Kindly grade the student as per his/her overall performance in the office during the assessment month which will be converted to the allotted 90 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture		✓			
Participation in the office		✓			
Reading of drawings			✓		
Presentation Techniques			✓		
Model making works		✓			
Understanding of construction details		✓			
Drafting Skills (Manual / Computer)			✓		
Site Supervision / Discussion with clients		✓			
Adherence to Time schedule	✓				
Other computer skills			✓		
File and Office Maintenance		✓			
Coordination with other consultants		✓			
Overall Grading*	C				

(A - 9.0, B - 8.0, C - 7.0, D - 6.0, E - 5.0)



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7. Any other Remarks : To Improve Sketching Communication, UNDERSTANDING SECTIONS.

8. Signature of the:
Head of the Office
/ Organization
(With Seal)



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PROFESSIONAL PRACTICAL TRAINING REPORT 2022

(Continuous progress report of the trainee architect for the period of One month in the office to submitted to HOD by the Trainee in Charge of the Organization)

1. Name of the office / organization : MUD HANDS
2. Address & Contact Number : NO.549 14th Cross 26th Main Road. 1st Phase J.P NAGAR. Bangalore KA 560078
3. Name of the student : MANISH JOTHIG
4. Duration : From 14.07.2022 To 13.08.2022
5. Total No. of days : 17 days

6. Evaluation of Performance criteria shall be on

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month which will be converted to the allotted 90 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture	✓				
Participation in the office	✓				
Reading of drawings	✓				
Presentation Techniques		✓			
Model making works	✓				
Understanding of construction details	✓				
Drafting Skills (Manual / Computer)	✓				
Site Supervision / Discussion with clients	✓				
Adherence to Time schedule		✓			
Other computer skills		✓			
File and Office Maintenance	✓				
Coordination with other consultants	✓				
Overall Grading*	A				

(A - 9.0, B - 8.0, C - 7.0, D - 6.0, E - 5.0)



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7. Any other Remarks : _____

8. Signature of the:
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/ Organization
(With Seal)



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PROFESSIONAL PRACTICAL TRAINING REPORT 2022

(Continuous progress report of the trainee architect for the period of One month in the office to submitted to HOD by the Trainee in Charge of the Organization)

1. Name of the office / organization : MUD HANDS.
2. Address & Contact Number : NO.549 14th Cross Street 26th Main Road
1st Phase J.P.NAGAR Bangalore KA 560078
3. Name of the student : MANISH JOTHIGA
4. Duration : From 14.08.2022 To 13.09.2022
5. Total No. of days : 22 days.

6. Evaluation of Performance criteria shall be on

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month which will be converted to the allotted 90 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture	✓				
Participation in the office	✓				
Reading of drawings	✓				
Presentation Techniques		✓			
Model making works	✓				
Understanding of construction details	✓				
Drafting Skills (Manual / Computer)	✓				
Site Supervision / Discussion with clients	✓				
Adherence to Time schedule		✓			
Other computer skills		✓			
File and Office Maintenance	✓				
Coordination with other consultants	✓				
Overall Grading*	A-				

(A-9.0, B-8.0, C-7.0, D-6.0, E-5.0)



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7. Any other Remarks : _____

8. Signature of the:
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/ Organization
(With Seal)



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(Continuous progress report of the trainee architect for the period of One month in the office to submitted to HOD by the Trainee in Charge of the Organization)

1. Name of the office / organization : MUD HANDS
NO. 549, 14th cross 26th Main Road, 1st Phase
2. Address & Contact Number : J.P. NAGAR Bangalore KA-560078
3. Name of the student : MANISH JOTHI G
4. Duration : From 14.09.2022 To 30.10.2022
5. Total No. of days : 33 days.

6. Evaluation of Performance criteria shall be on

* Note: Kindly grade the student as per his/her overall performance in the office during the assessment month which will be converted to the allotted 90 marks by the department.

Description of works	Excellent	Good	Fair	Poor	NA
Understanding of office culture	✓				
Participation in the office	✓				
Reading of drawings	✓				
Presentation Techniques		✓			
Model making works		✓			
Understanding of construction details	✓				
Drafting Skills (Manual / Computer)		✓			
Site Supervision / Discussion with clients	✓				
Adherence to Time schedule	✓				
Other computer skills	✓				
File and Office Maintenance	✓				
Coordination with other consultants		✓			
Overall Grading*	A				

(A - 9.0, B - 8.0, C - 7.0, D - 6.0, E - 5.0)



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/ Organization
(With Seal)



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S.NO	DATE	DAY'S LOG
1	13.06.2022	site visit, staircase(classic orchard), solar panel service
2	14.06.2022	kollegala physical model
3	15.06.2022	kollegala physical model
4	16.06.2022	ordered pots for penthouse
5	17.06.2022	site visit(penthouse, jp nair) , passive ventilation, footing drawings
6	18.06.2022	kollegala (super imposedsurvey plan into plan)
7	20.06.2022	site visit (basavangudi , jp nagar, opera house) , site context study.
8	21.06.2022	searched for fan vendor , site visit
9	22.06.2022	kollegala section correction
10	23.06.2022	kollegala structural model
11	24.06.2022	kollegala structural model+ model
12	25.06.2022	kollegala model, classic orchard plan changes
13	27.06.2022	site visit (jp nair, opera house, basavangudi),jp nair basement measured at site
14	28.06.2022	site supervision(basavangudi) solved a problem with neighbour, orchard model
15	29.06.2022	site supervision(demolision)
16	30.06.2022	site visit (madur, penthouse) madur - context explanation, penthouse- landscape ideas
17	01.07.2022	madur plan , sectional model, helped with electrical layout for penthouse
18	02.07.2022	madur plan , sectional model, Had track with plumber for chennai site
19	03.07.2022	site visit @ neelangarai chennai. wood quantity calculation and client conversation
20	04.07.2022	visted nursery garden for landscape design (to check prices of plants and pots)
21	05.07.2022	ordered plants for neelangarai, ordered marble for neelangarai
22	06.07.2022	sketched some areas of site , windows and ordered chain and visited nursery garden for landscape
23	10.07.2022	site supervision (neelangarai)
24	11.07.2022	site supervision (neelangarai)enquired about the fountain pump
25	12.07.2022	site supervision (got wood from timber shop)
26	13.07.2022	site supervision (neelangarai)
27	14.07.2022	went to fabricator shop (to give sizes for tensgritiy structure)
28	15.07.2022	Had track with fabricator
29	16.07.2022	Did some sketches of tensgrity structure
30	03.08.2022	site visit(prabath)
31	04.08.2022	attended a staircase workshop conducted by principal architect
32	05.08.2022	site supervision(prabath site temporary structure)
33	06.08.2022	site supervision (prabath site)
34	08.08.2022	site supervision(went to hardware shop to buy construction material)
35	09.08.2022	site supervision (basavangudi)
36	10.08.2022	site supervision(prabath site -explained mason and made the marking for excavation), visited fan showroom to order tripodal fans and went to nursery garden
37	11.08.2022	site supervision(basavangudi,prabath site - excavation started)
38	12.08.2022	site supervision(basavangudi , prabath site) prabath site - contacted jcb vendar for load
39	13.08.2022	site supervision (prabath site- excavation , basavangudi - surveyors marking supervised)
40	16.08.2022	site supervision (basavangudi ,prabath site) contacted ported to transport pots from bangalore to chennai
41	17.08.2022	site supervision (basavangudi ,prabath site) instructed mason about the drawing
42	18.08.2022	site supervision (basavangudi ,prabath site)
43	19.08.2022	site supervision (basavangudi ,prabath site) went to nursery garden to transport the pots from bangalore to chennai
44	20.08.2022	site supervision (basavangudi ,prabath site) measured the site excavation in the site and made drawings
45	22.08.2022	site supervision (basavangudi ,prabath site) started sketching sections for the basement
46	23.08.2022	site supervision (basavangudi ,prabath site) ordered gravel , steel and M sand for P.C.C
47	24.08.2022	site supervision (basavangudi ,prabath site)
48	25.08.2022	site supervision (basavangudi ,prabath site)
49	26.08.2022	site supervision (basavangudi ,prabath site) to check materials

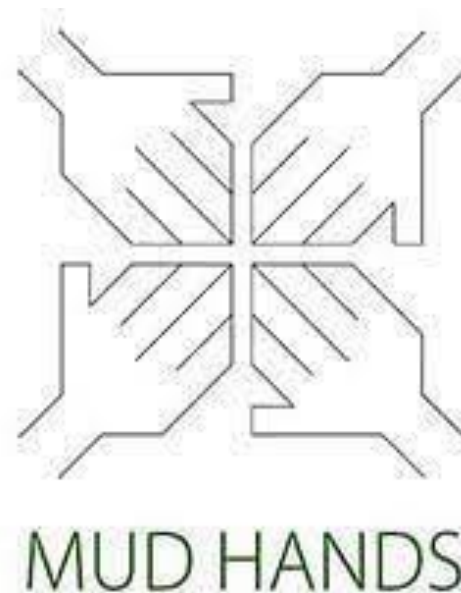
50	27.08.2022	site supervision (basavangudi ,prabath site)
51	01.09.2022	site supervisioon(prabath site) making sections
52	02.09.2022	basement section for prabath site
53	03.09.2022	basement section for prabath site
54	05.09.2021	basement section for prabath site and made changes in plan
55	06.09.2021	made changes in plan and section
56	07.09.2021	started prabath sections
57	08.09.2021	had talk with lightbox polymer , structural drawings study and made sections
58	09.09.2022	made changes in plan and section
59	10.09.2022	completed sections
60	12.09.2022	Area statement for prabath site(excel sheet)
61	13.09.2022	prabath site excavation model
62	14.09.2022	Area statement for prabath(in plan)
63	15.09.2022	site visit , (prabath, basavangudi - bar bending)
64	16.09.2022	site visit (prabath site- survey marking supervision , barbended column placing)
65	17.09.2022	jp nair site(jack arch roof explanation to jp nair and ismc placing explanation)
66	19.09.2022	prabath site (supervision)
67	20.09.2022	penthouse(wardrobe) +prabath ssm wall drawing
68	21.09.2022	prabath site(marking for centering)
69	22.09.2022	site supervision (prabath site) + ordered glass for chennai
70	23.09.2022	plan correction(prabath site supervison)
71	24.09.2022	plan correction(prabath site supervison)
72	26.09.2022	prabath site supervision(retaining wall)
73	27.09.2022	prabath site supervision+plan correction prabath
74	28.09.2022	Prabath site supervision+ prabath staircase
75	29.09.2022	prabath staircase section
76	30.09.2022	prabath staircase section
77	01.10.2022	prabth final plan correction
78	03.10.2022	prabth final plan correction
79	06.10.2022	prabath final plan according top column
80	07.10.2022	Prabath basement section(changed)
81	08.10.2022	Prabath basement section(changed)
82	10.10.2022	Prabath basement section(changed)
83	11.10.2022	Prabath basement section(changed)
84	12.10.2022	Prabath foundation plan correction
85	13.10.2022	Prabath foundation plan correction
86	14.10.2022	prabath model
87	15.10.2022	prabath model
88	17.10.2022	prabath model
89	18.10.2022	prabath model
90	19.10.2022	prabath model
91	20.10.2022	prabath model
92	21.10.2022	periscope, pin hole camera learning
93	22.10.2022	prabath model
94	30.10.2022	jackarch workshop

MUD EARTH HANDS ARCHITECTURE

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LIFE OF MUD HANDS

- We are a research based studio working on a variety of non-conventional architectural design projects.
- We, believe By the process of analyzing and understanding the user needs, culture and lifestyle, unique designs are derived for each user.
- We believe in generating new ideas and breaking free the barriers of Architectural intervention enhances each space with its innovations and widespread ideas.



CONTENT

1. MULTIDWELLING RESIDENCE
2. EAGLE RIDGE RESIDENCE
3. PENTHOUSE
4. CLASSIC ORCHARD- RAGHAVAN
5. KALAMANTAPA
6. TWIN RESIDENCE
7. NEELANGARAI
8. OPERA HOUSE
9. WORKSHOP

PROJECT NAME : MULTIDWELLING HOUSE
CLIENT: MR. NAGRAJ & MR.PRABATH

SITE DETAILS LOCATION: JP NAGAR 1ST PHASE , BENGALURU 560078.
SITE AREA: 2700 SQFT.

SITE CHALLENGE:
THE MOST CHALLENGING THING WAS THE COCONUT TREE IN THE SITE.
THE TREE WAS COVERING HALF OF THE SITE



THE TREE WAS COVERING HALF OF THE SITE SO IT WAS THE MAJOR
GOAL OF OUR DESIGN



SITE



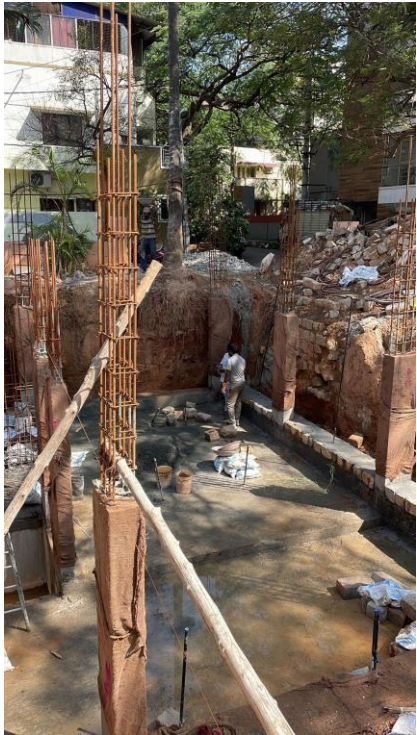
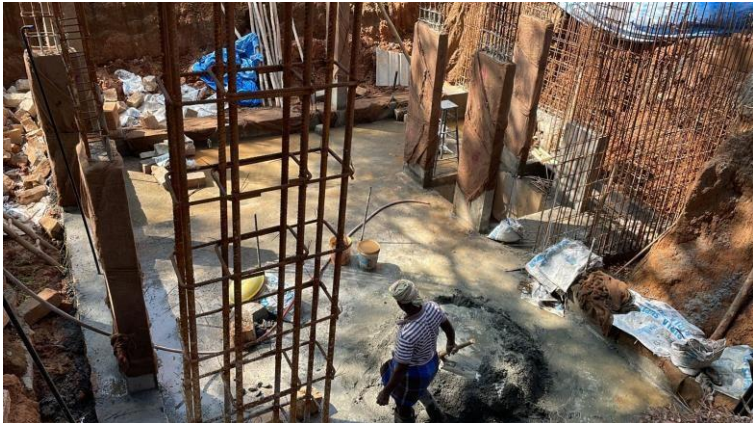
SITE AT INITIAL STAGE



TEMPORARY SHELTER FOR WATCHMEN



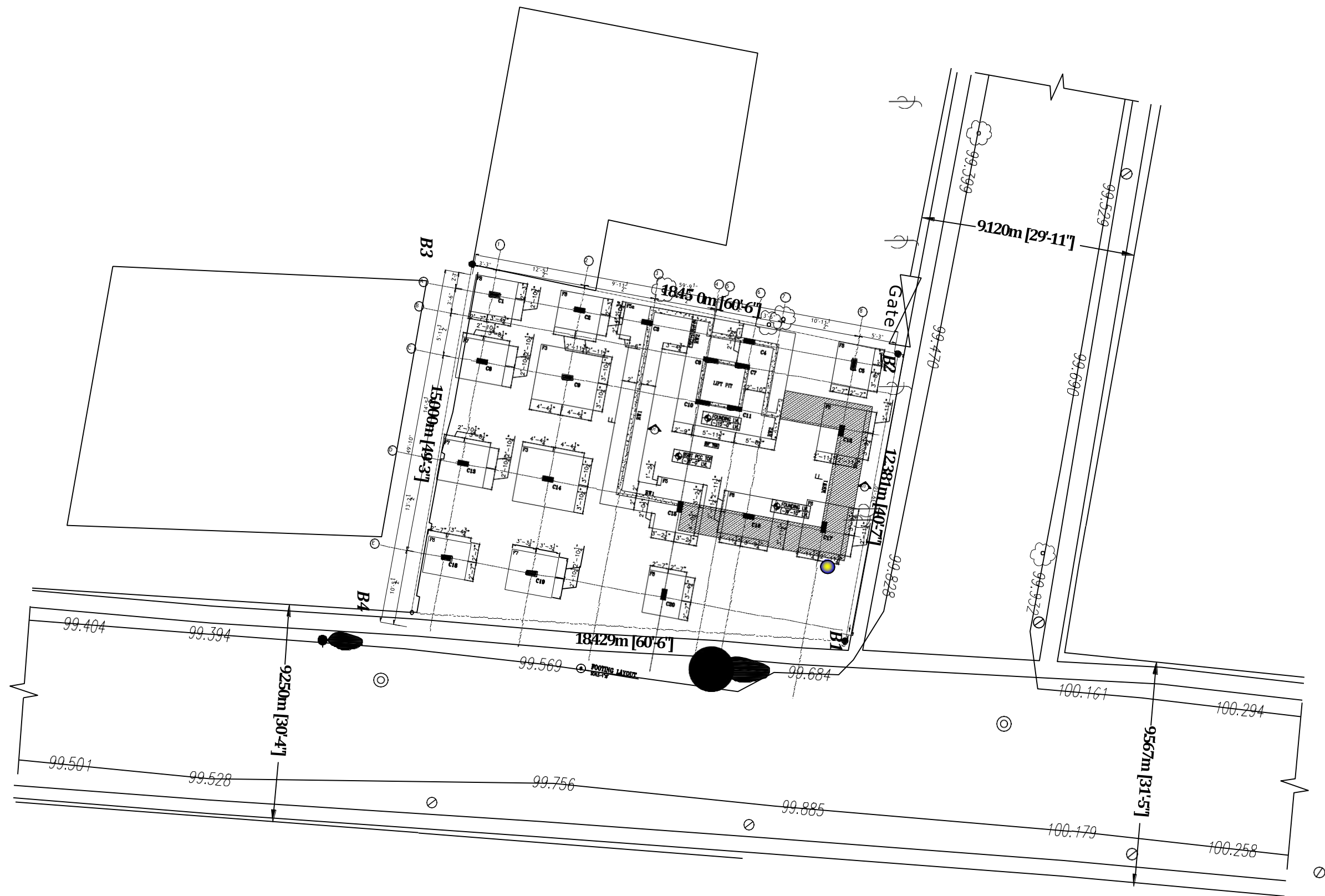
CONCRETING DONE FOR LIFT SHAFT



GRADE SLAB IS LAID AND CURRENT STATE OF THE
PROJECT

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LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

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CONSULTANTS

DRAWING NAME
Super Imposed plan
DRAWING INTENTION

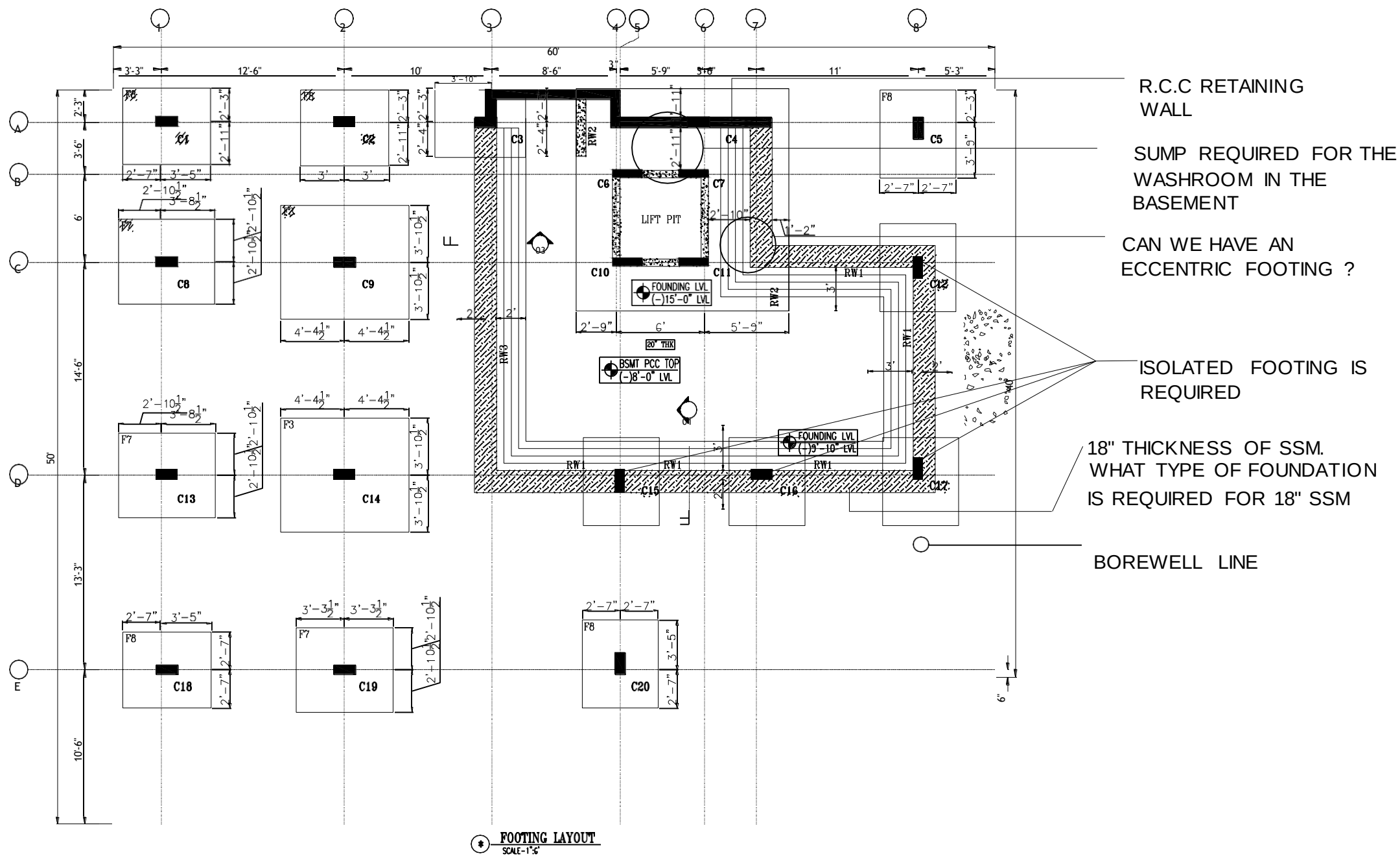
DRAWING DESCRIPTION

DATE SCALE DRAWING NO.

DRAWN BY CHECKED BY

MUD HANDS
Earth Architecture





NOTE: 1.BEAM LAYOUT FOR BASEMENT IS REQUIRED
2. EXCAVATION PLAN FOR FOOTING IS REQUIRED

LEGENDS

SPECIAL NOTES

- 1.BEAM LAYOUT FOR BASEMENT IS REQUIRED
- 2.EXCAVATION PLAN FOR FOOTING IS REQUIRED

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

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CONSULTANTS

DRAWING NAME
Structural Requirement plan
DRAWING INTENTION

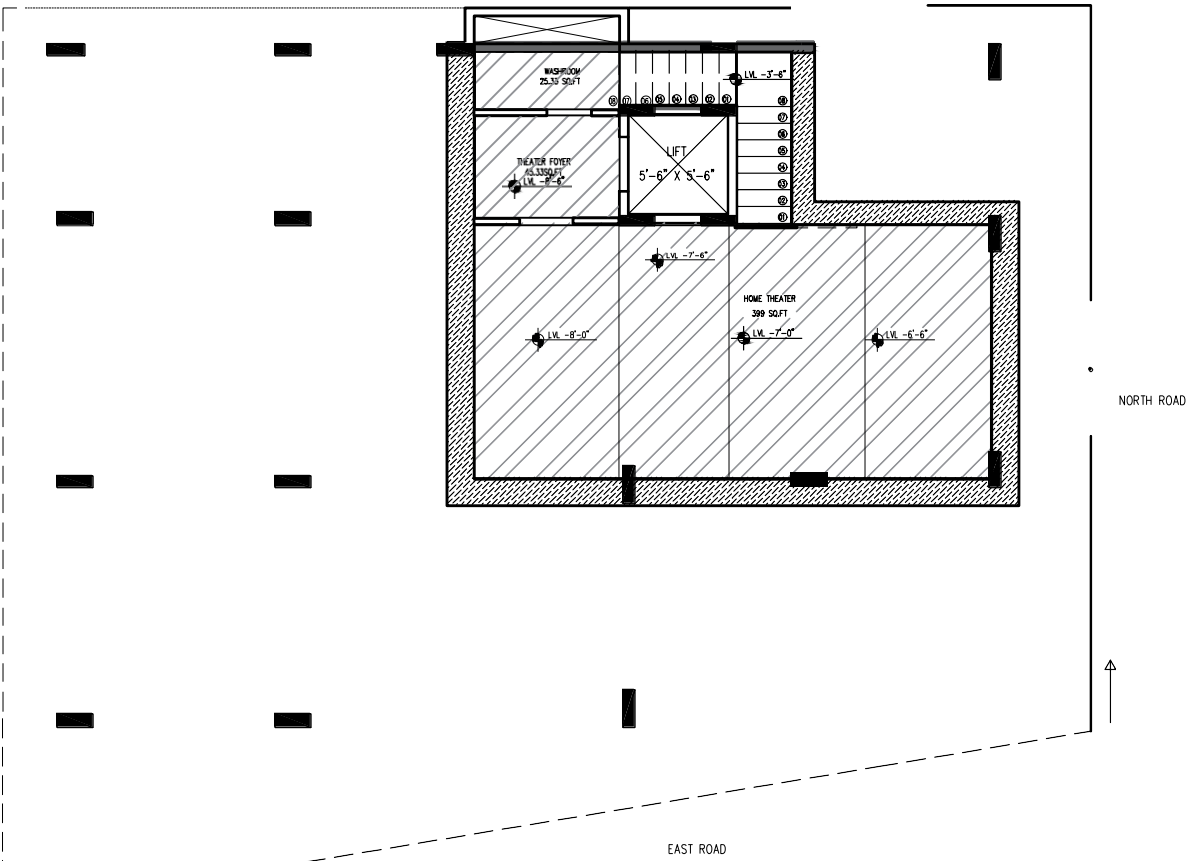
DRAWING DESCRIPTION

DATE SCALE DRAWING NO.

DRAWN BY CHECKED BY

MUD HANDS
Earth Architecture

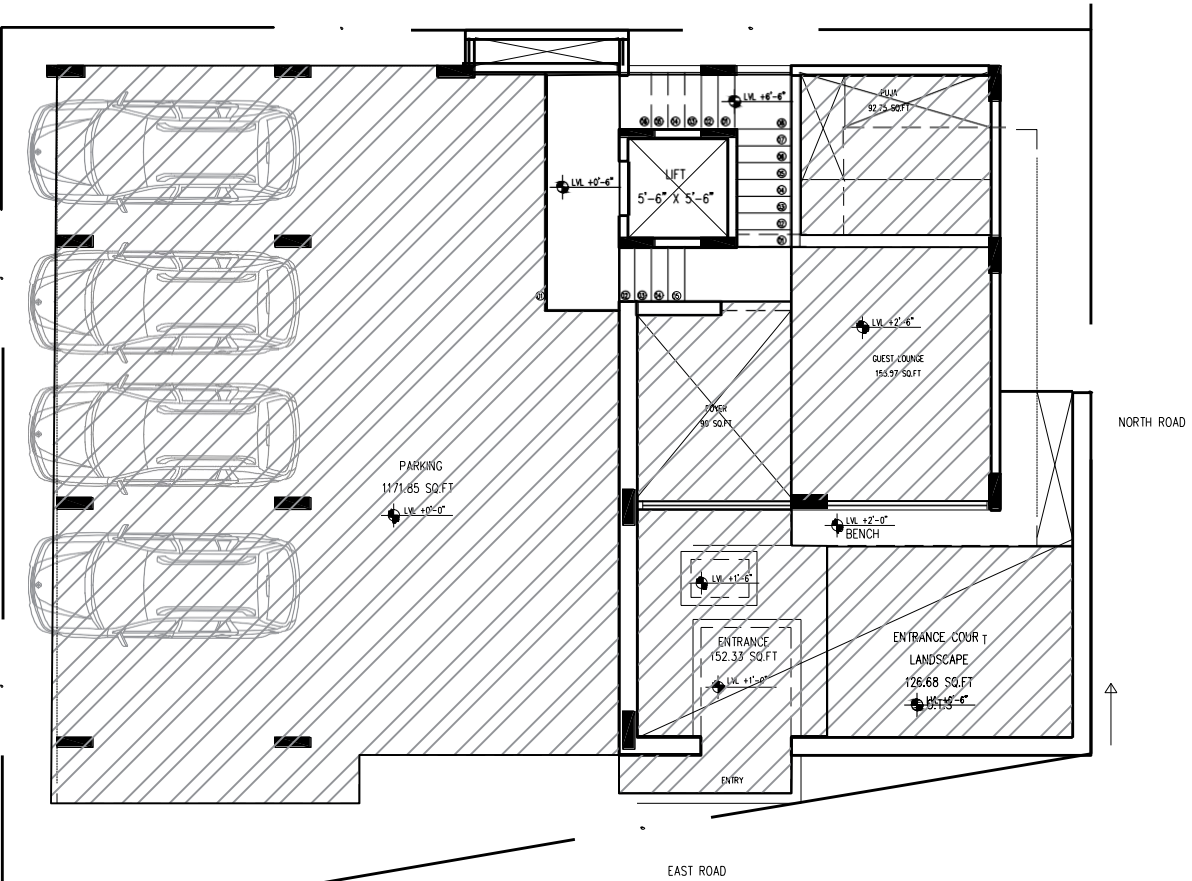




SL.NO	DESCRIPTION	X		Y		CARPET AREA	BUILT UP AREA
		FT	IN	FT	IN	IN SQ.FT	IN SQ.FT
	BASEMENT FLOOR						
1	HOME THEATRE	28	6	15	0	399 SQ.FT	511.08SQ.FT
2	THEATRE FOYER	8	0	5	8	45.33SQ.FT	58.52SQ.FT
3	WASHROOM	8	0	3	3	25.SQ.FT	36.54SQ.FT
4	LIFT	5	6	5	6	30.25SQ.FT	36SQ.FT
5	STAIRCASE					48SQ.FT	68.98SQ.FT

AREA STATEMENT
PLOT AREA 6700 SFT
BUILT UP AREA 606 SFT

PLAN AT
LVL - 3' - 6"
BASEMENT



SL.NO	DESCRIPTION	X		Y		CARPET AREA	BUILT UP AREA
		FT	IN	FT	IN	IN SQ.FT	IN SQ.FT
	GROUND FLOOR						
1	FOYER	8	6	10	6	87.12sq.ft	107.07sq.ft
2	GUEST LOUNGE	11	0	14	0	154sq.ft	170.67sq.ft
3	PUJA	10	6	8	10	92.75sq.ft	109.5sq.ft
4	PARKING	31	0	40	8	1166.19sq.ft	0
5	ENTRANCE COURT LOUNGE	13	6	10	6	142.28sq.ft	0
6	ENTRANCE	10	5	12	6	126.71sq.ft	0
7	LIFT	5	6	5	6	30.25sq.ft	36sq.ft
8	STAIRCASE i					46.5sq.ft	59.35sq.ft
9	STAIRCASE ii					69sq.ft	71.08sq.ft

PLOT AREA 2700 SFT
BUILT UP AREA 484 SFT
PARKING AREA 1220 SFT
ENTRANCE COURT 427 SFT
AREA STATEMENT

PLAN AT
LVL +6' - 6"
GROUND FLOOR

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

Mr.Nagraj

CONSULTANTS

DRAWING NAME

Area statement

DRAWING INTENTION

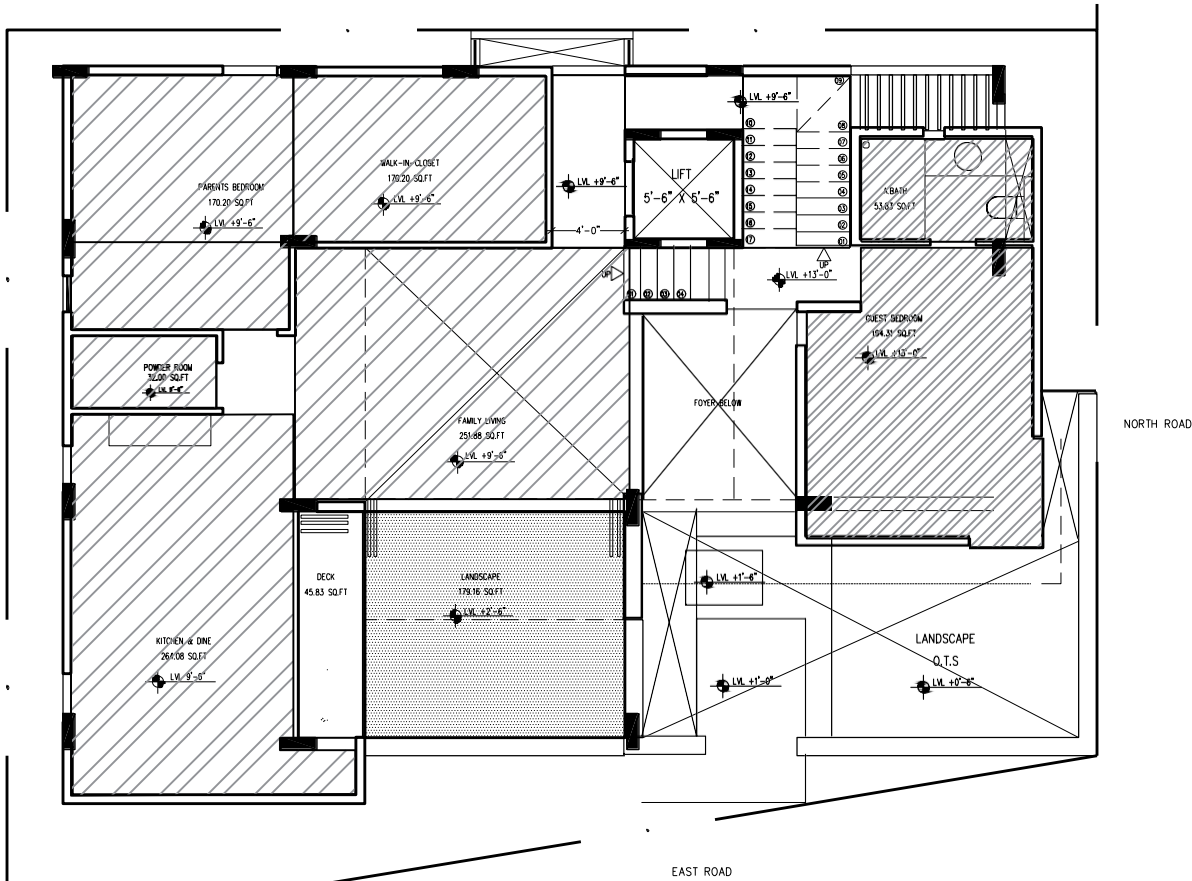
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DATE SCALE DRAWING NO.

DRAWN BY CHECKED BY

MUD HANDS
Earth Architecture





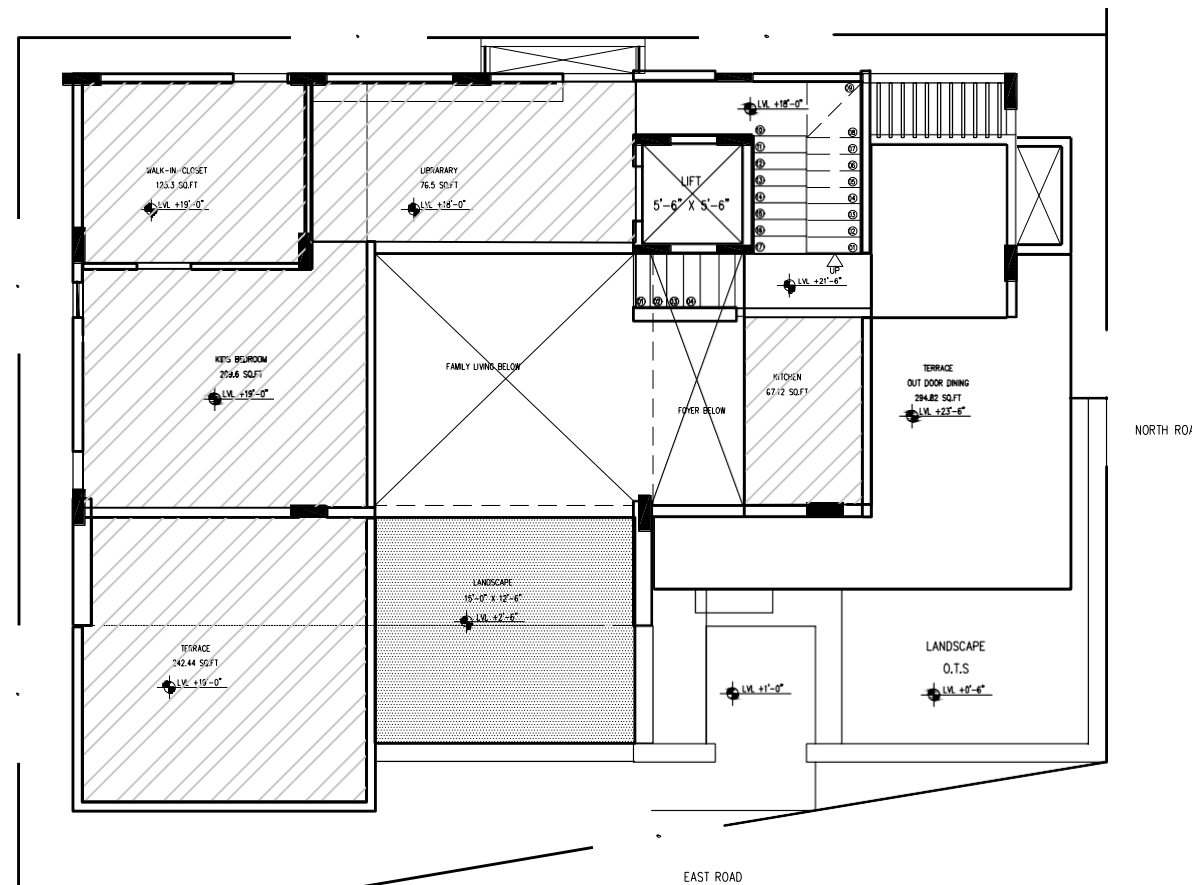
PLAN AT LVL
+16' - 0"
FIRST
FLOOR

SL.NO	DESCRIPTION	X		Y		CARPET AREA	BUILT UP AREA
		FT	IN	FT	IN	IN SQ.FT	IN SQ.FT
	FIRST FLOOR						
1	GUEST BEDROOM	12	6	16	0	189.5sq.ft	212.25sq.ft
2	A.BATH	9	6	5	8	53.88 sq.ft	66.36sq.ft
3	FAMILY LIVING	19	3	13	10	251.88sq.ft	273.13sq.ft
4	WALK -IN-CLOSET	13	11	9	2	127.56sq.ft	142.5sq.ft
5	PARENTS BEDROOM	12	3	14	14	170.31sq.ft	187.61sq.ft
6	POWDER ROOM	8	0	4	0	32sq.ft	39.75sq.ft
7	KITCHEN AND DINE	12	6	21	0	271.25sq.ft	38.36sq.ft
8	DECK	3	8	12	6	45.83sq.ft	0
9	LANDSCAPE	14	4	12	6	179.16sq.ft	0
10	LIFT	5	6	5	6	30.25sq.ft	36sq.ft
11	STAIRCASE i					57sq.ft	65.28sq.ft
12	STAIRCASE ii					18.75sq.ft	22.65sq.ft

AREA STATEMENT 1700 SFT
BUILT UP AREA 1455 SFT

LEGENDS

SPECIAL NOTES



PLAN AT LVL
+25' - 0"
SECOND
FLOOR

SL.NO	DESCRIPTION	X		Y		CARPET AREA	BUILT UP AREA
		FT	IN	FT	IN	IN SQ.FT	IN SQ.FT
	SECOND FLOOR						
1	TERRACE OUTDOOR GARDEN	23	0	24	6	296.61sq.ft	0
2	KITCHEN	6	6	10	3	67.12sq.ft	77sq.ft
3	LIBRARY	17	10	9	6	169.41sq.ft	180.04sq.ft
4	WALK-IN CLOSET	12	4	10	0	123.3sq.ft	138.27sq.ft
5	KIDS BEDROOM	15	8	13	8	206.09sq.ft	218.78sq.ft
6	TERRACE	15	8	15	8	242.44sq.ft	0
7	LIFT	5	6	5	6	30.25sq.ft	36sq.ft
8	STAIRCASE i					57sq.ft	65.28sq.ft
9	STAIRCASE ii					18.75sq.ft	22.65sq.ft

PLOT AREA 2700 SFT
BUILT UP AREA 753 SFT

AREA STATEMENT

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

Mr.Nagraj
CONSULTANTS

DRAWING NAME

Area statement
DRAWING INTENTION

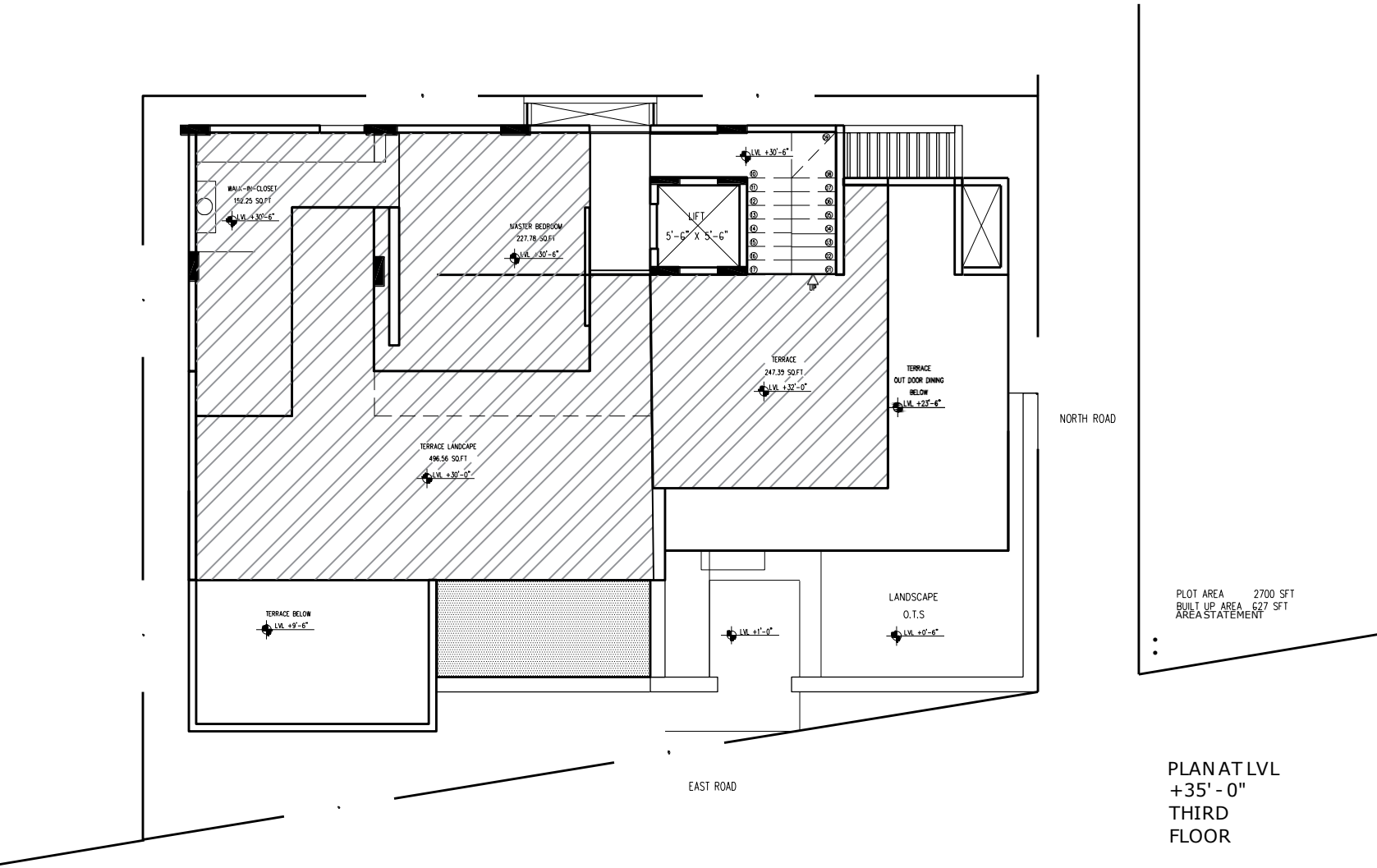
DRAWING DESCRIPTION

DATE SCALE DRAWING NO.

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MUD HANDS
Earth Architecture





SL.NO	DESCRIPTION	X		Y		CARPET AREA	BUILT UP AREA
		FT	IN	FT	IN	IN SQ.FT	IN SQ.FT
	THIRD FLOOR	14	4	16	0	246.7sq.ft	0
1	TERRACE LANDSCAPE	30	6	14	0	397.11sq.ft	0
2	MASTER BEDROOM	14	6	16	0	232sq.ft	239.38sq.ft
3	WALK -IN -CLOSET	12	3	16	0	152.25sq.ft	168.24sq.ft
4	LIFT	5	6	5	6	30.25sq.ft	36sq.ft
5	STAIRCASE i					57sq.ft	65.28sq.ft
6	STAIRCASE ii					18.75sq.ft	22.65sq.ft

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT

CLIENT

Mr.Nagraj

CONSULTANTS

DRAWING NAME

Area statement

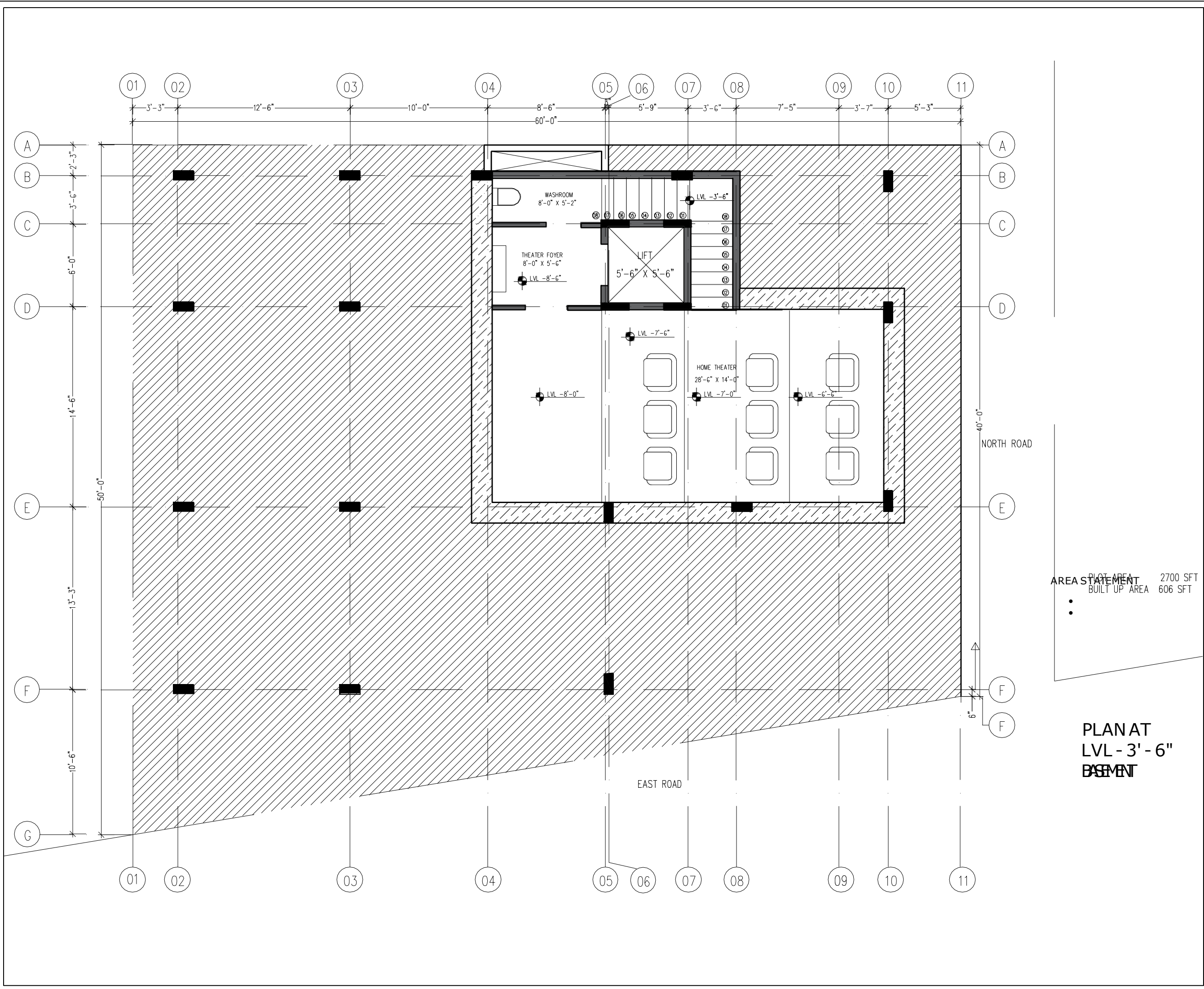
DRAWING INTENTION

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DATE	SCALE	DRAWING NO.
DRAWN BY	CHECKED BY	

MUD HANDS
Earth Architecture





AREA STATEMENT
PLOT AREA 2700 SFT
BUILT UP AREA 606 SFT

PLAN AT
LVL - 3'-6"
BASEMENT

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT

CLIENT

Mr.Nagraj

CONSULTANTS

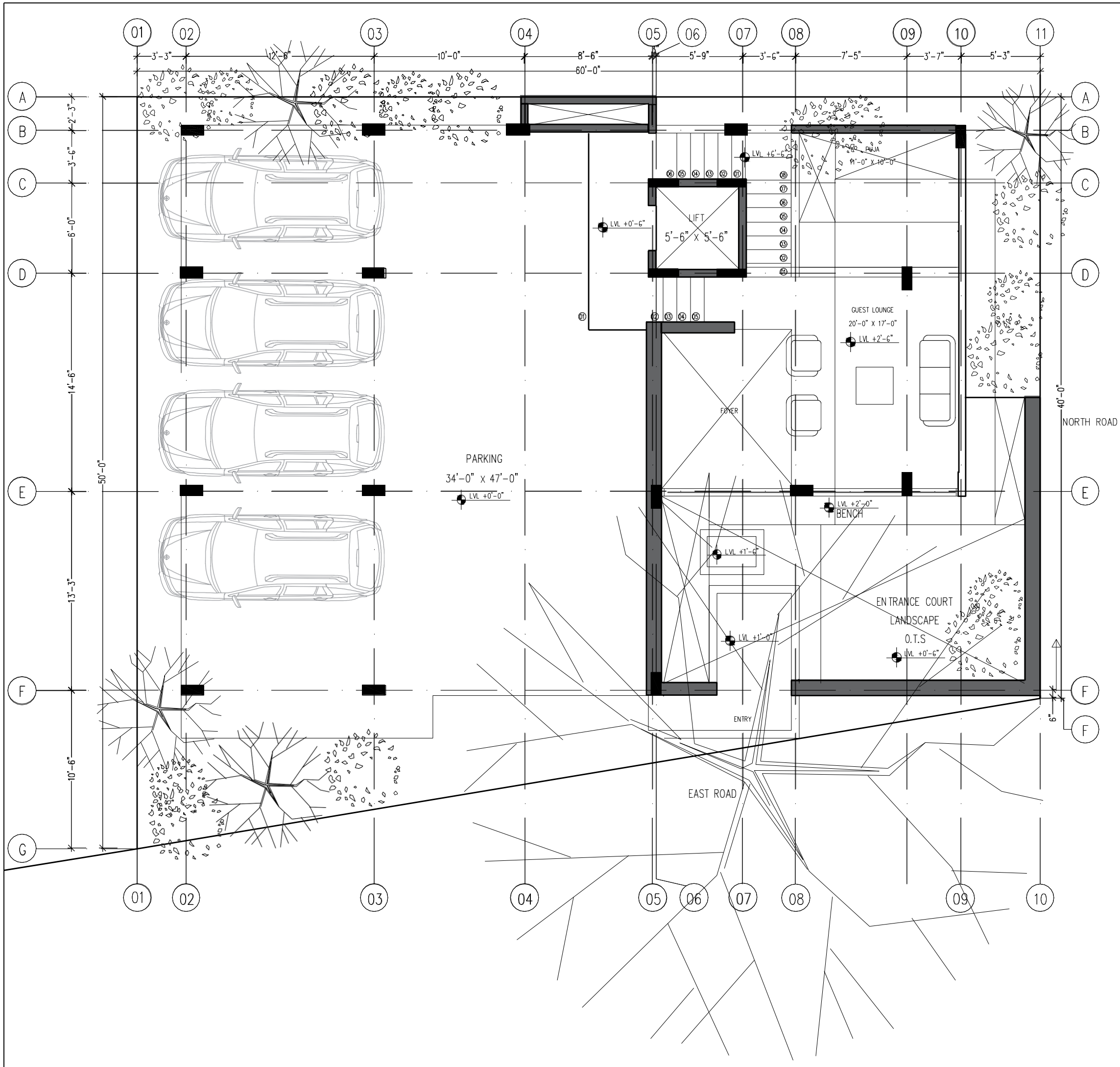
DRAWING NAME

Revised Plan

DRAWING INTENTION

DRAWING DESCRIPTION

DATE	SCALE 1:75	DRAWING NO.
DRAWN BY	CHECKED BY	



AREA STATEMENT	
BUILT UP AREA	2700 SFT
PARKING AREA	484 SFT
ENTRANCE COURT	1220 SFT
	427 SFT

PLAN AT LVL
+6' - 6"
GROUND
FLOOR

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT

CLIENT

Mr.Nagraj

CONSULTANTS

DRAWING NAME

Revised Plan

DRAWING INTENTION

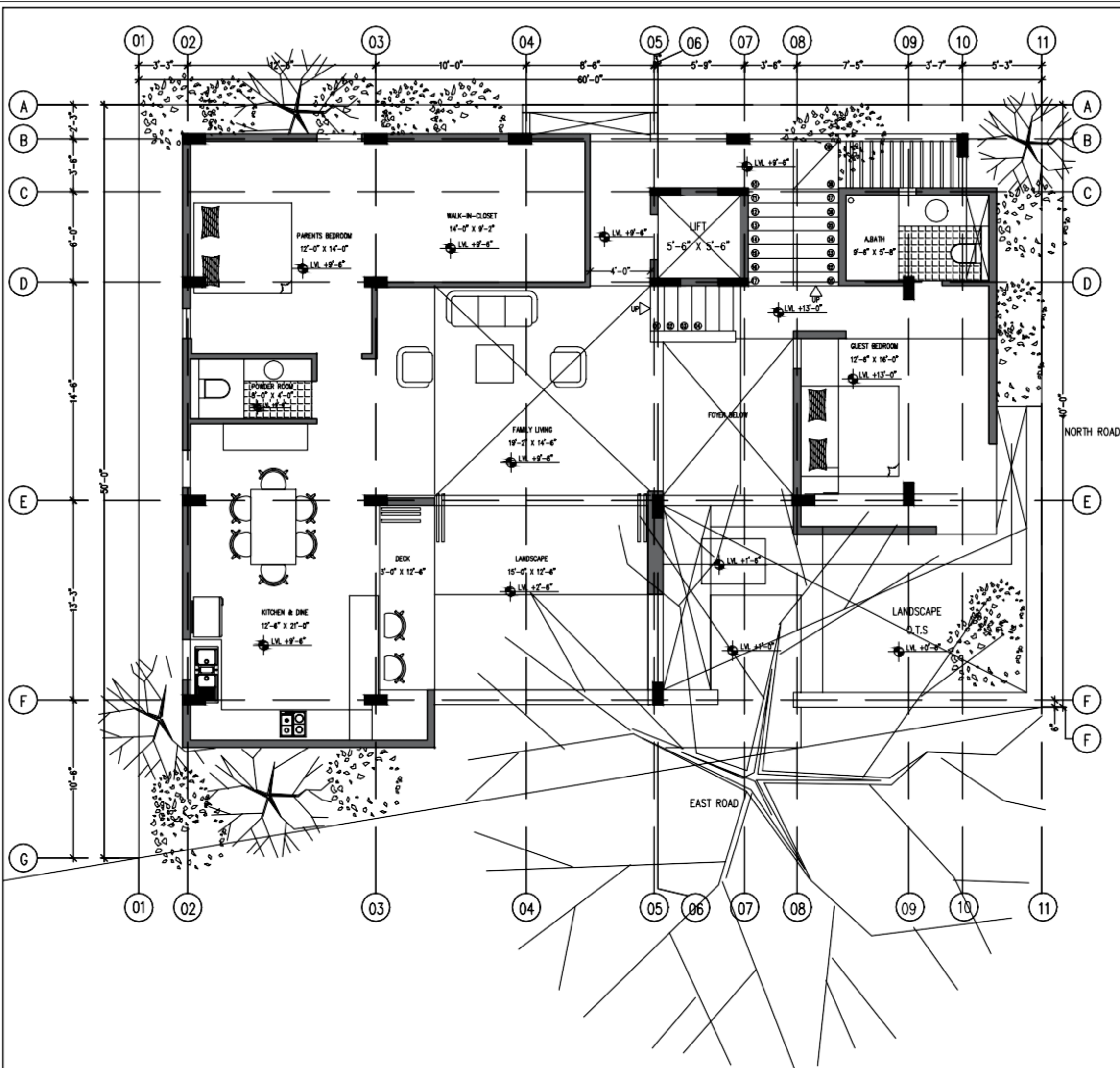
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1:75

DRAWN BY	CHECKED BY
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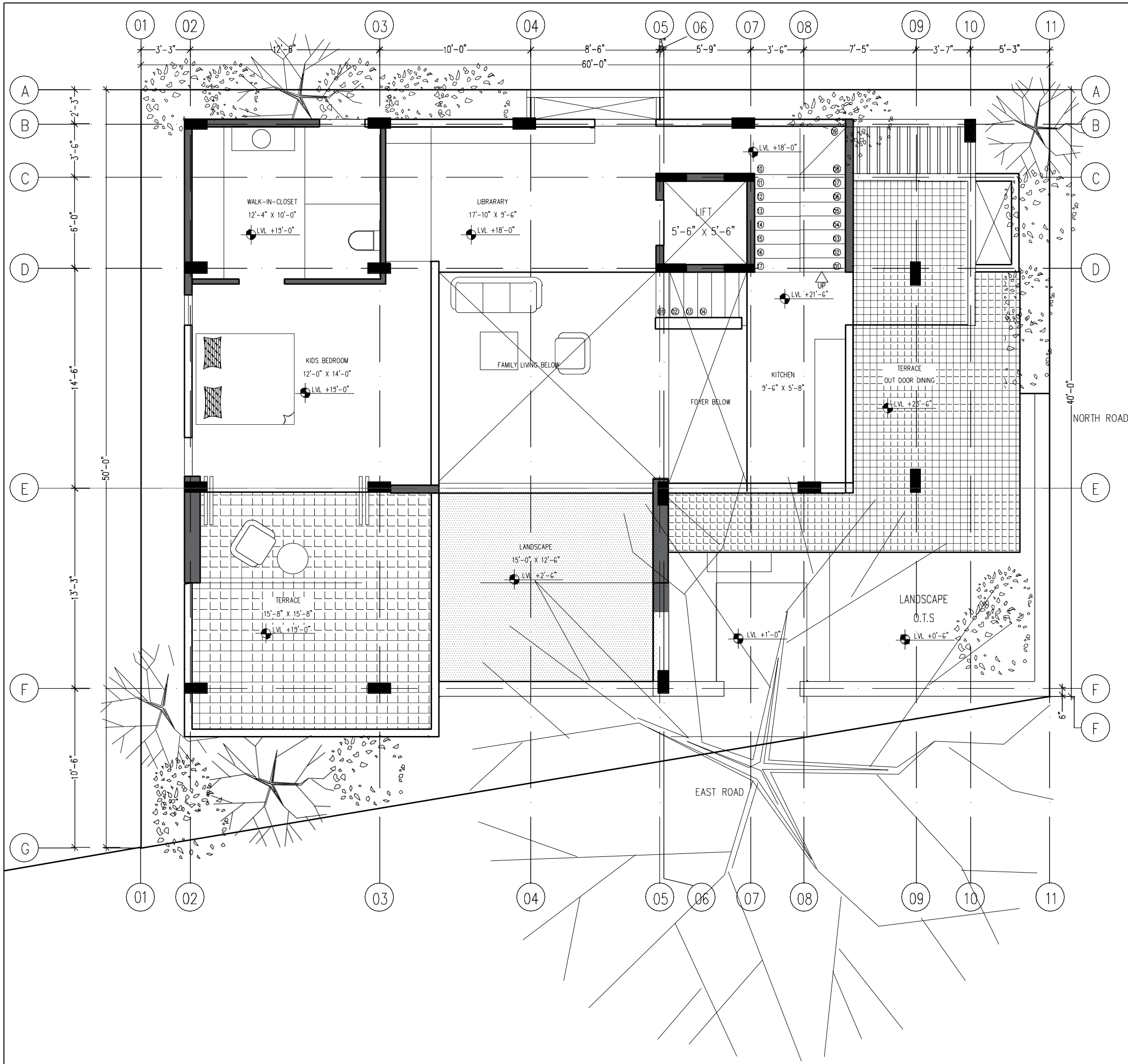


- AREAS/MENT
- PLOT AREA 2700 SFT
 - BUILT UP AREA 1455 SFT

PLAN AT LVL +16'-0"
FIRST FLOOR

LEGENDS		
SPECIAL NOTES		
KEYPLAN		
PAPER SIZE	A3	NORTH
PROJECT		
CLIENT		
Mr. Nagraj		
CONSULTANTS		
DRAWING NAME		
Revised Plan		
DRAWING INTENTION		
DRAWING DESCRIPTION		
DATE	SCALE	DRAWING NO.
	1:75	
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MUD HANDS Earth Architecture		





AREA STATEMENT
BUILT UP AREA 2700 SFT
753 SFT

PLAN AT LVL
+25' - 0"
SECOND
FLOOR

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT

CLIENT

Mr.Nagraj

CONSULTANTS

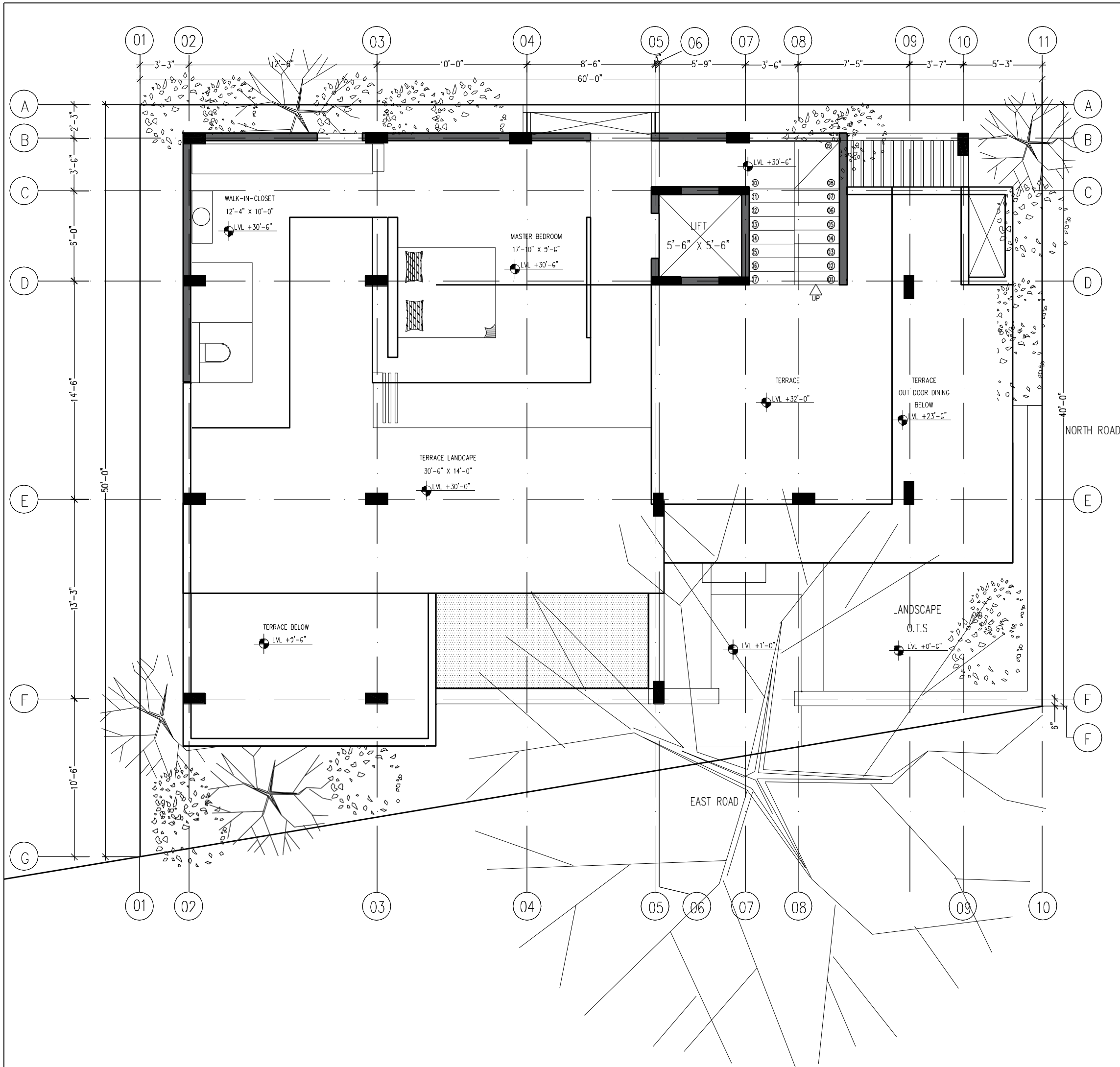
DRAWING NAME

Revised Plan

DRAWING INTENTION

DRAWING DESCRIPTION

DATE	SCALE	DRAWING NO.
	1:75	
DRAWN BY	CHECKED BY	



AREA STATEMENT
TOTAL AREA 2700 SFT
BUILT UP AREA 627 SFT

PLAN AT LVL
+35' - 0"
THIRD
FLOOR

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT

CLIENT

Mr.Nagraj
CONSULTANTS

DRAWING NAME

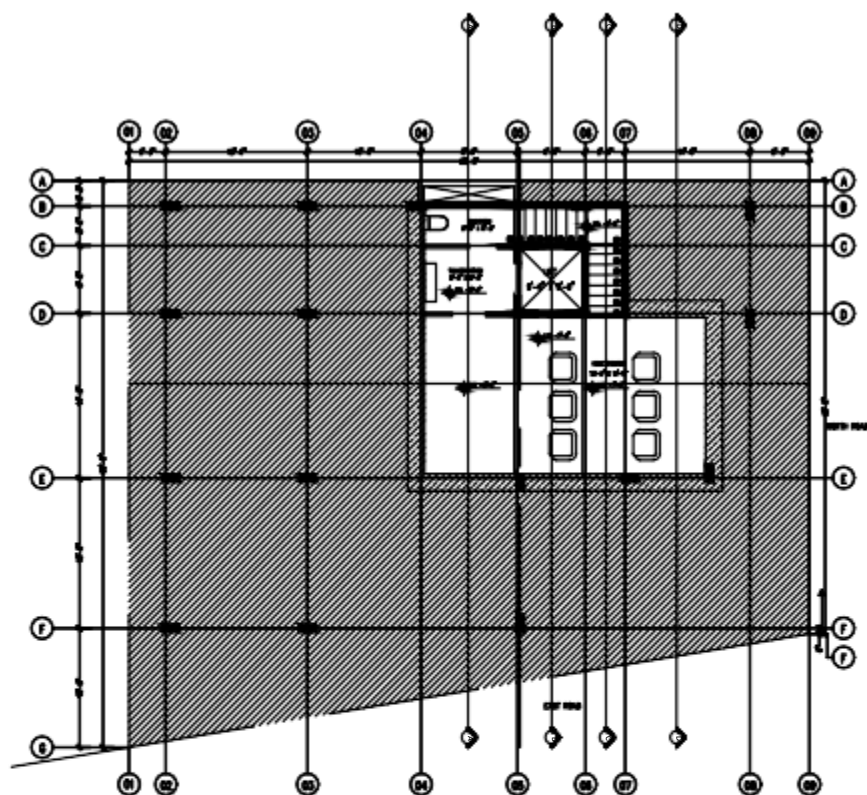
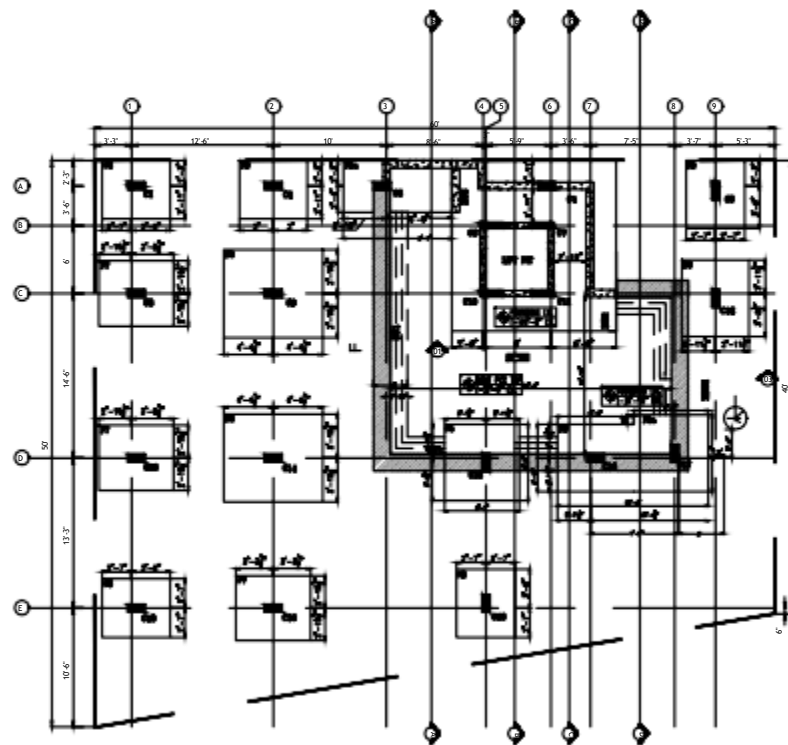
Revised Plan
DRAWING INTENTION

DRAWING DESCRIPTION

DATE	SCALE 1:75	DRAWING NO.
DRAWN BY	CHECKED BY	

MUD HANDS
Earth Architecture

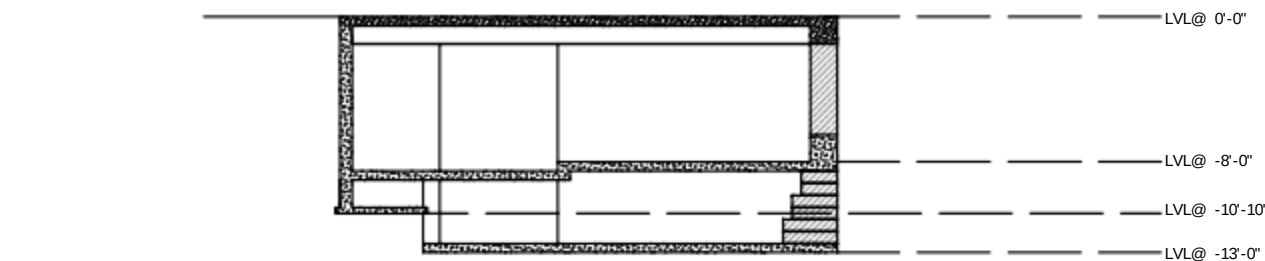




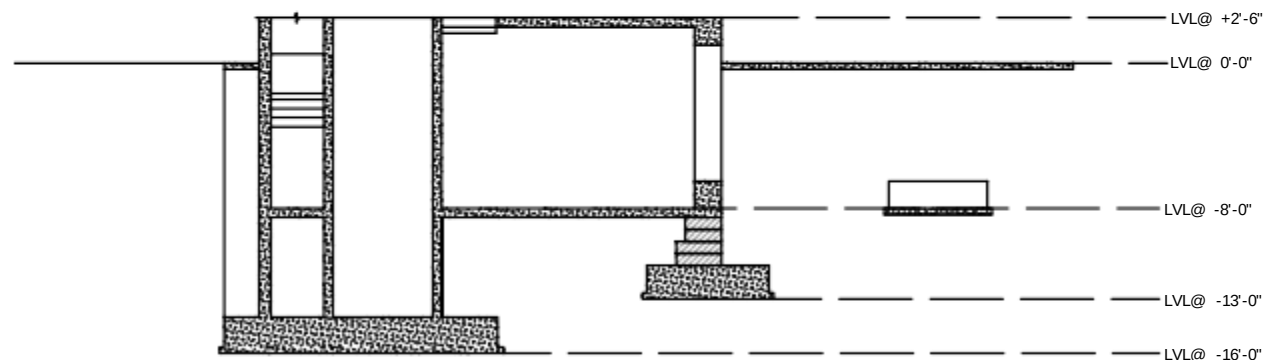
REMARKS
: 1. ALL DIMS. IN FT.
2. ALL DIMS. IN FT.

PLAN SCALE: 3/8" = 1'-0"
ELEVATION SCALE: 1/8" = 1'-0"

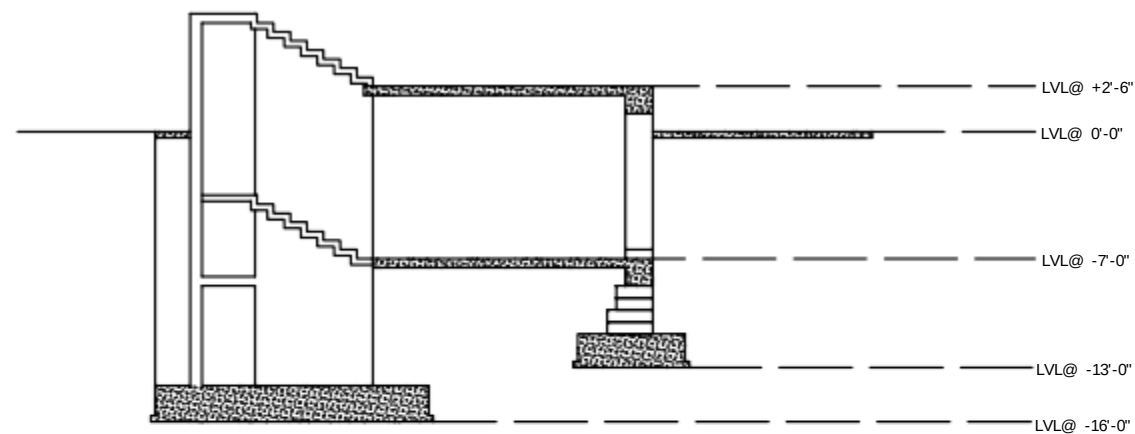
SECTION AA'



SECTION B-B'



SECTION C-C'



SECTION D-D'



LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

Nagraj
CONSULTANTS

DRAWING NAME
Basement Sections
DRAWING INTENTION

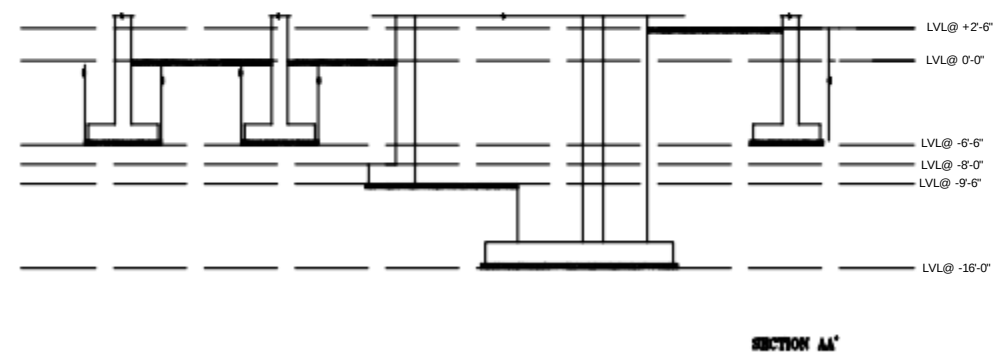
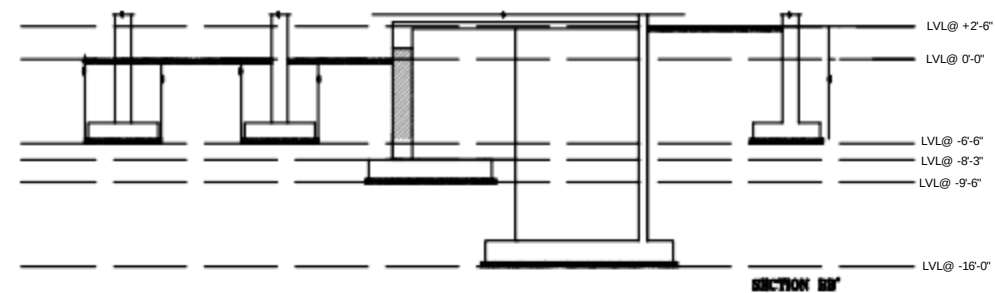
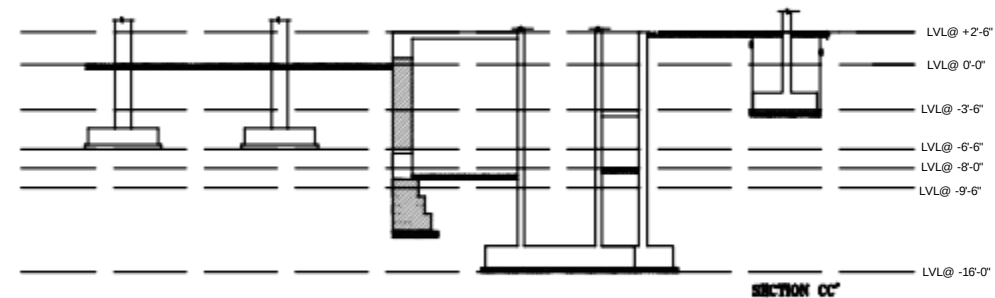
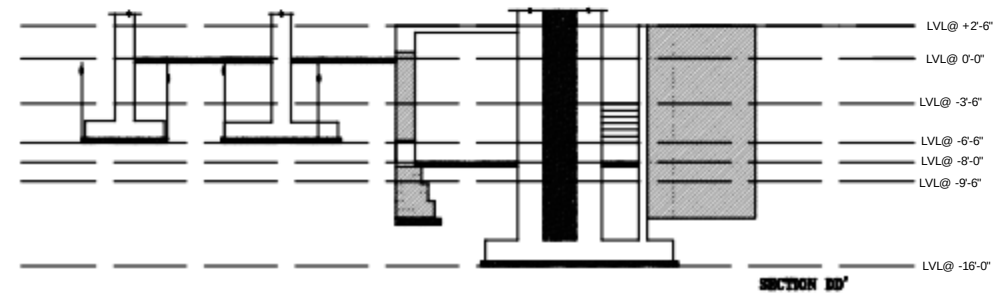
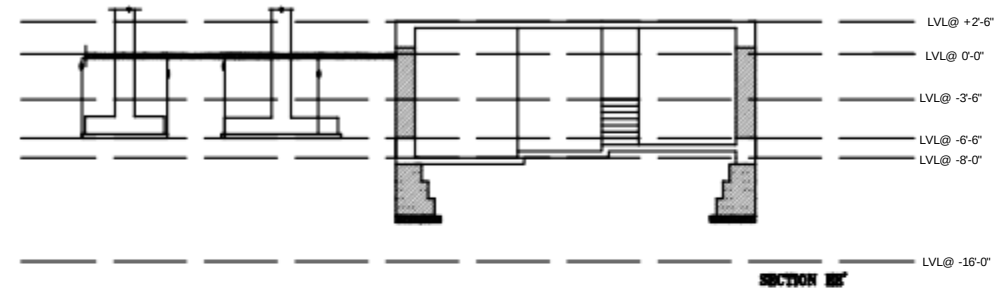
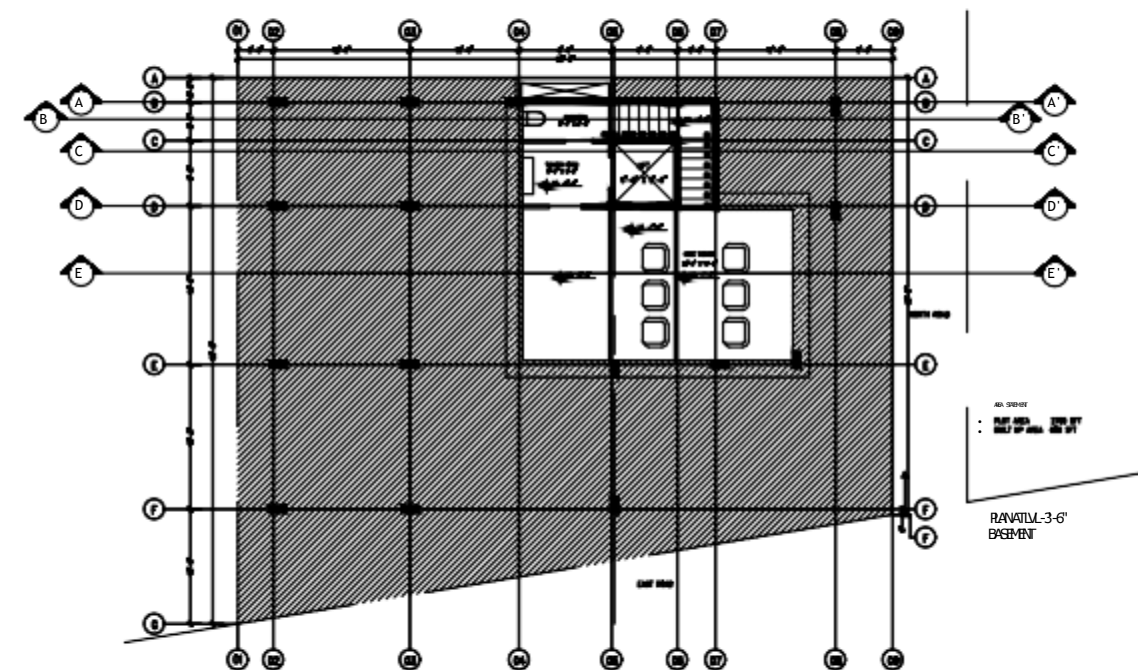
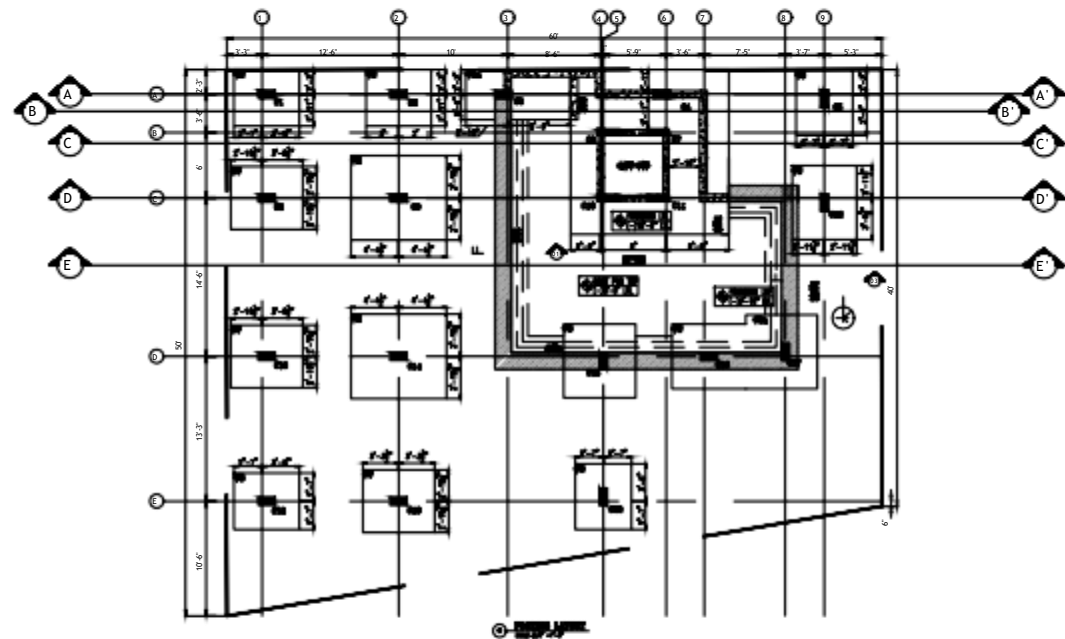
DRAWING DESCRIPTION

DATE SCALE DRAWING NO.

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Earth Architecture





LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

Nagraj

CONSULTANTS

DRAWING NAME

Basement Sections

DRAWING INTENTION

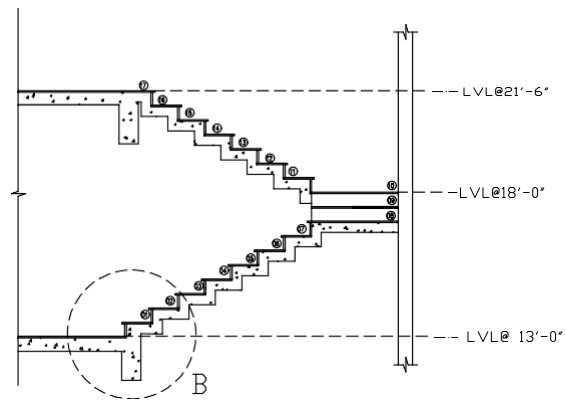
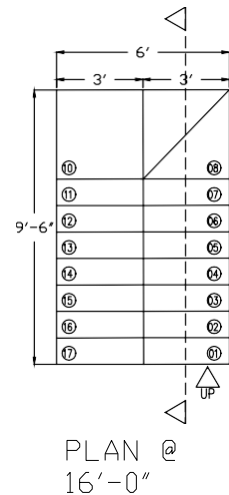
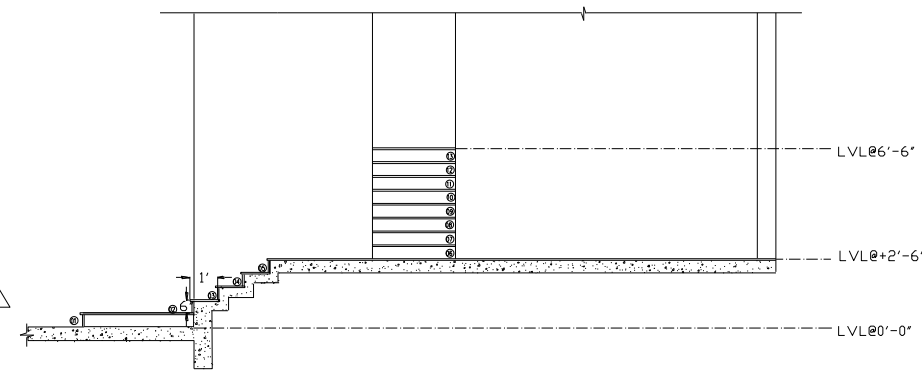
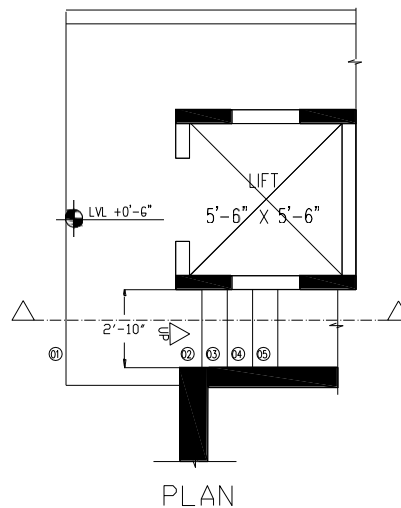
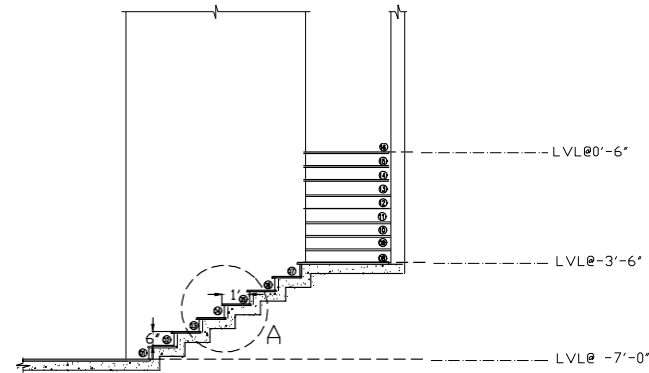
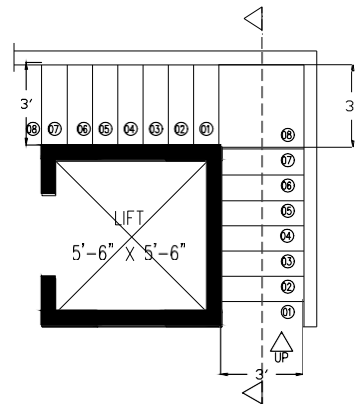
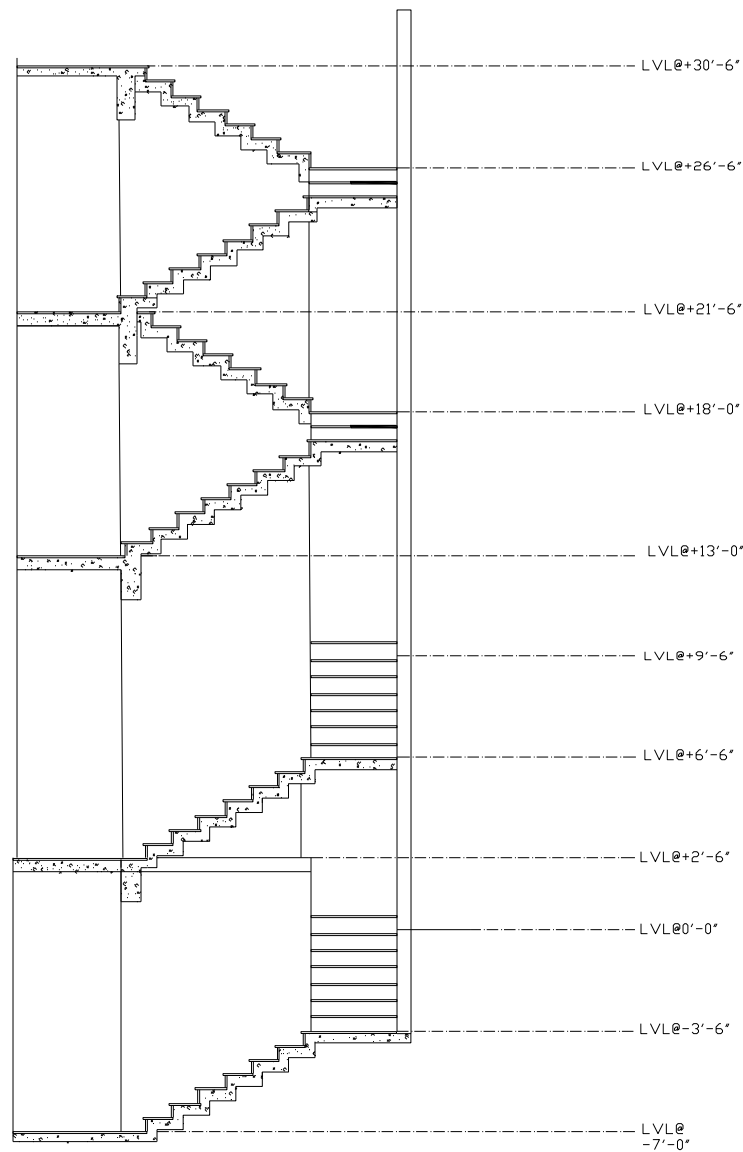
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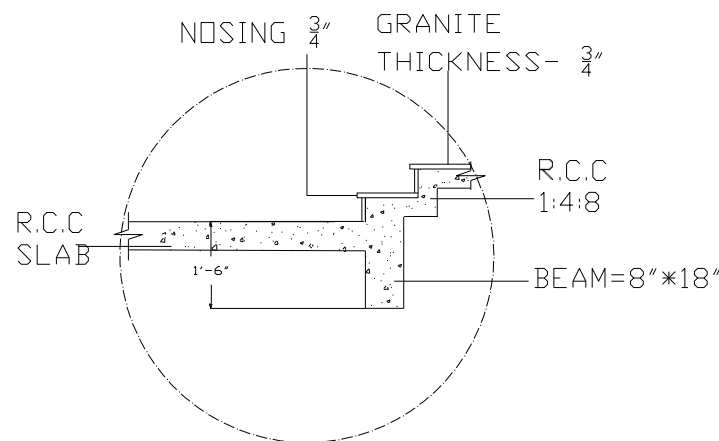
DRAWN BY CHECKED BY

MUD HANDS
Earth Architecture



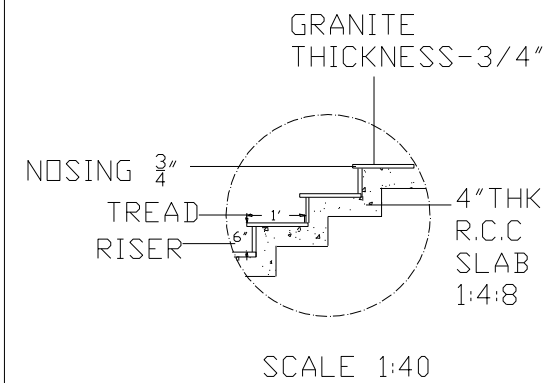


DETAIL - B

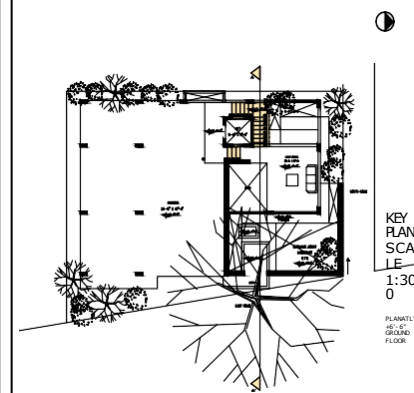


SCALE 1:40

DETAIL - A



LEGENDS



SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
PROJECT		
CLIENT		
	Nagraj	
CONSULTANTS		
DRAWING NAME	Staircase Details	
DRAWING INTENTION		
DRAWING DESCRIPTION		
DATE	SCALE	DRAWING NO.
DRAWN BY	CHECKED BY	

STAGES OF CONSTRUCTION



- SURVEYORS HAD BEEN MARKED FOR EXCAVATION AND HAD BEEN STARTED

EXCAVATION PROCESS

EXCAVATION DONE FOR FOOTING AND BASEMENT



CONCRETE MIXTURE OF GRADE M25



BARBENDING FOR LIFT COLUMN 6" *18"



P.C.C IS DONE AND COLUMN FOR LIFT IS PLACED AND CONCRETE IS POURED



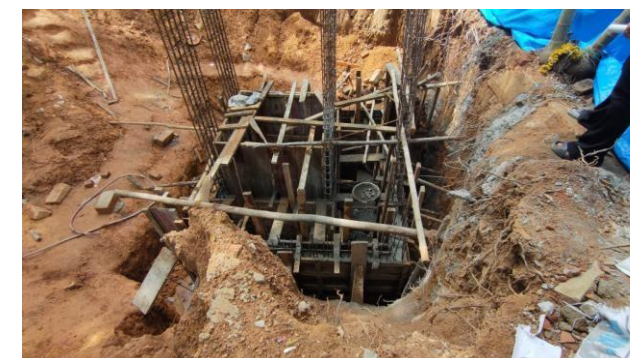
CONCRETE IS POURED AND SCAFFOLDING IS DONE



BARBENDING FOR RETAINING WALL



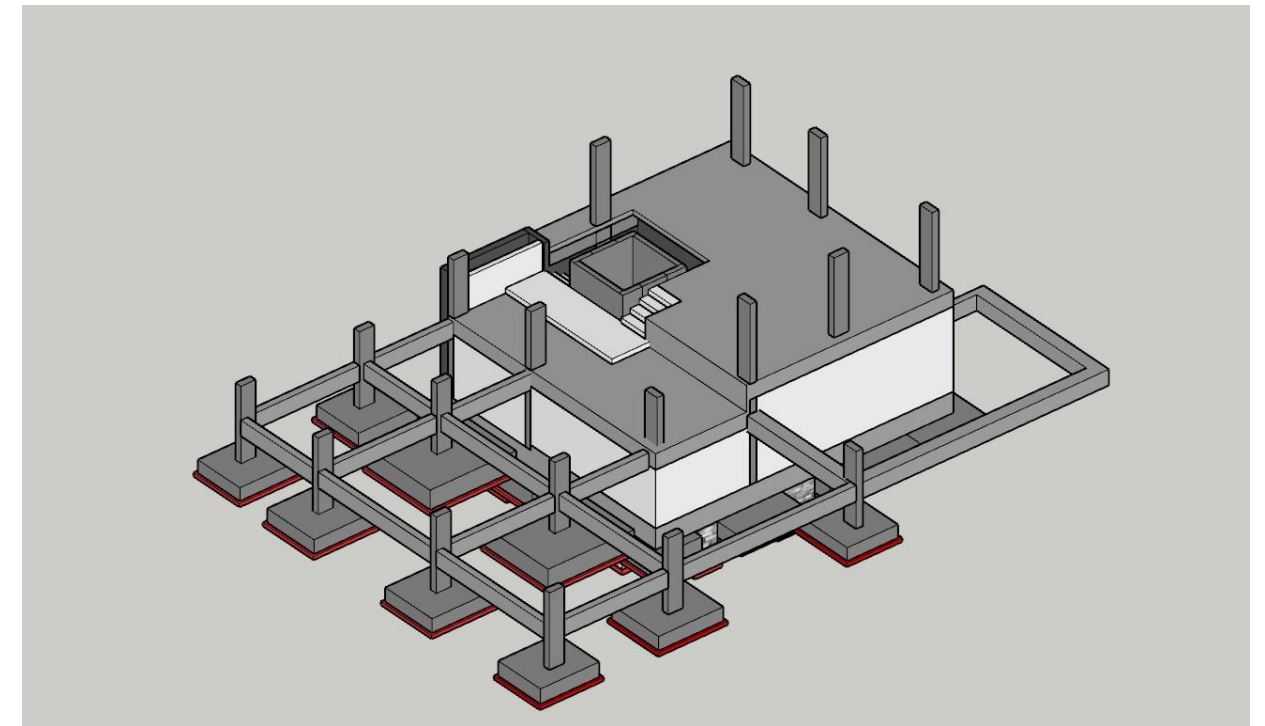
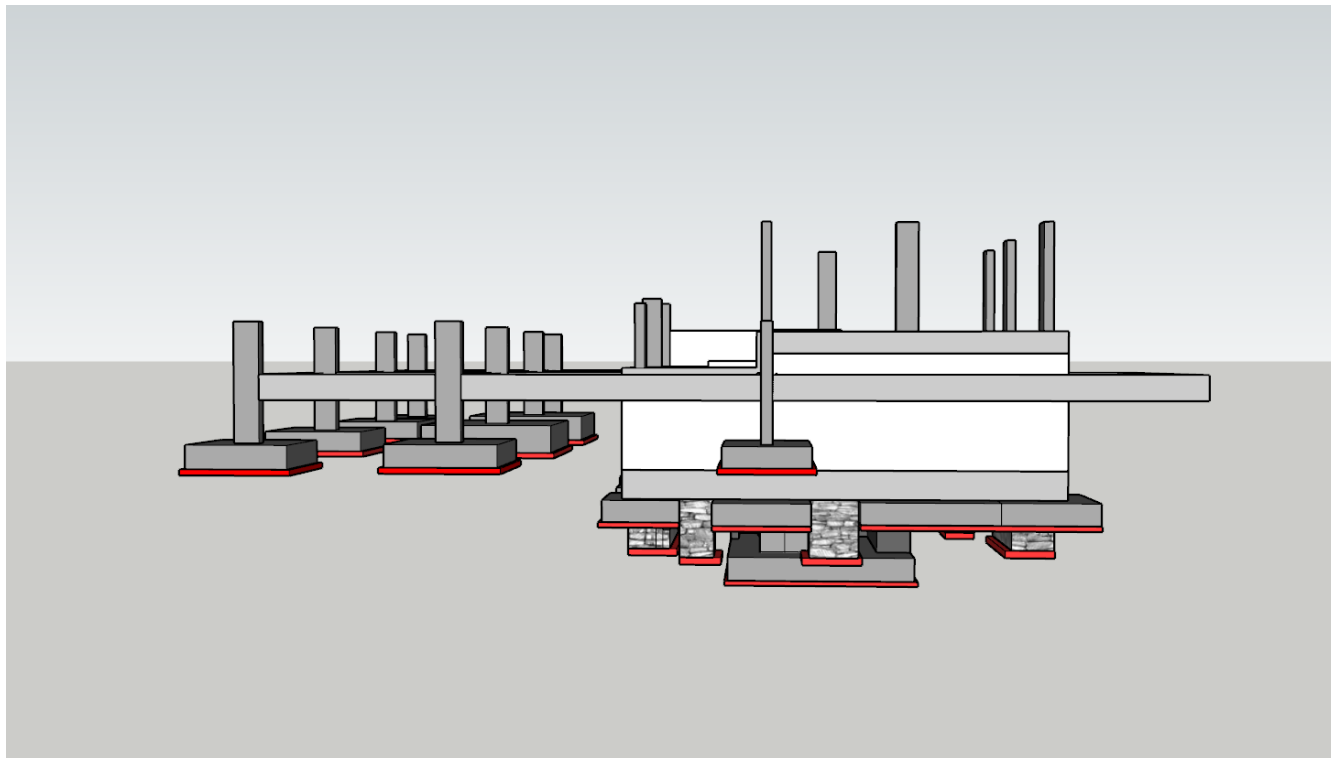
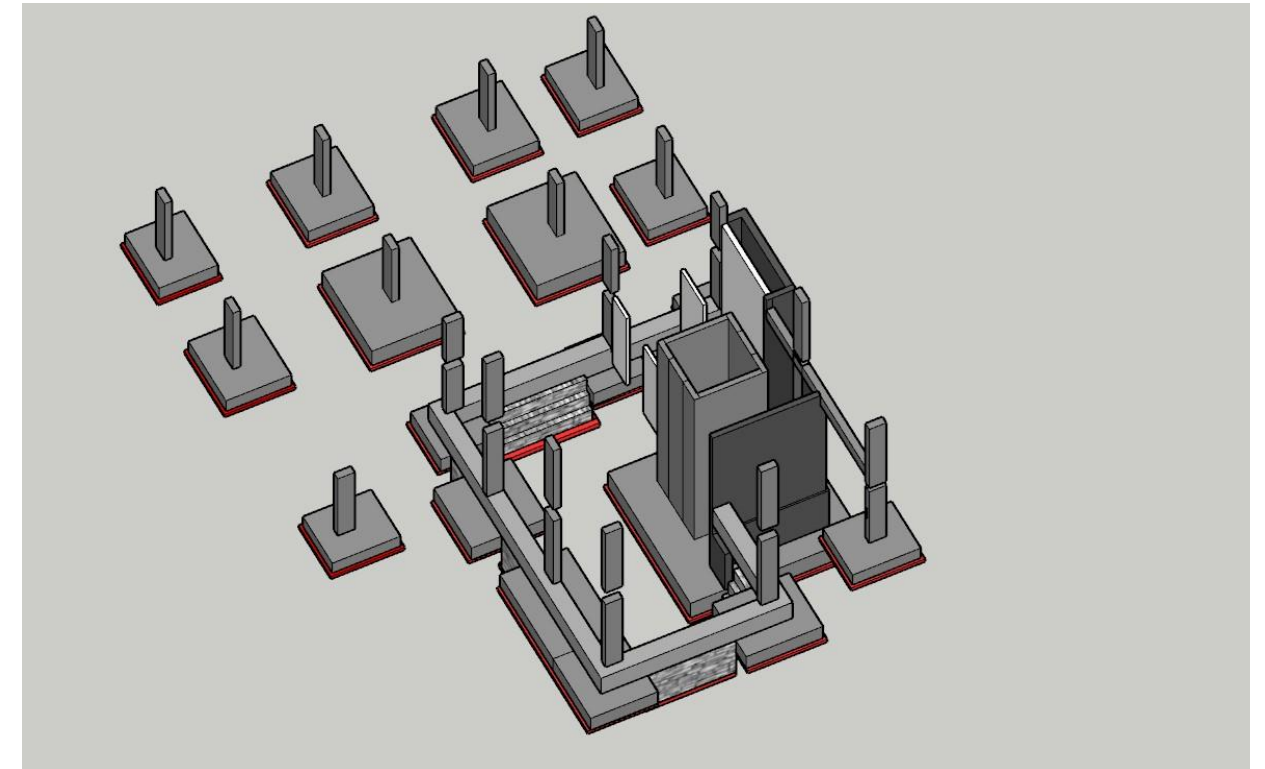
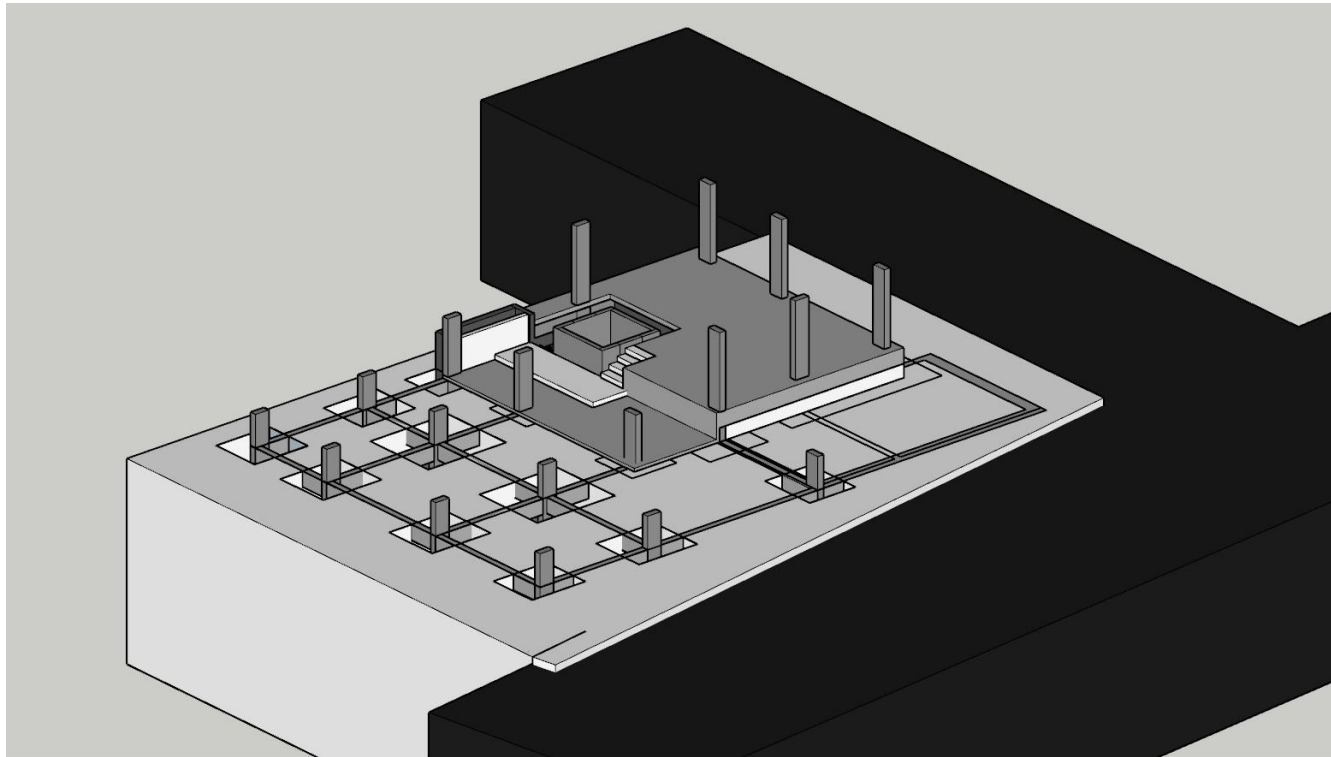
BARBENDING IS DONE



FORMWORK AND SCAFFOLDING IS DONE FOR LIFT SHAFT AND RETAINING WALL



AFTER FORMWORK IS REMOVED



- To understand the basement
- To understand how SSM and concrete footing plays a role in levels
- And how roots of the tree affect the structure of building

PROJECT NAME: EAGLE RIDGE RESIDENTIAL RENOVATION
CLIENT: JAYPRAKASH NAIR

SITE DETAILS LOCATION: EAGLE RIDGE RESORT, BEGUR, BENGALURU. **SITE AREA:** 2400 SQFT.

WEAKNESS- OLD BUILDING LOAD BEARING PRONE TO REPTILES CRAWLING INSIDE. HOUSE NOT CONNECTED IN EVERY LEVEL EXCEPT FOR STAIRCASE SHAFT

THREATS- GENERATOR SOUND POLLUTION. ANIMALS AND REPTILES COMING INSIDE. THEFT THREATS FROM THE BACKYARD CONSTRUCTION SITE.



JACKETING
DONE FOR THE
COLUMN TO
INCREASE THE
SIZE OF THE
COLUMN



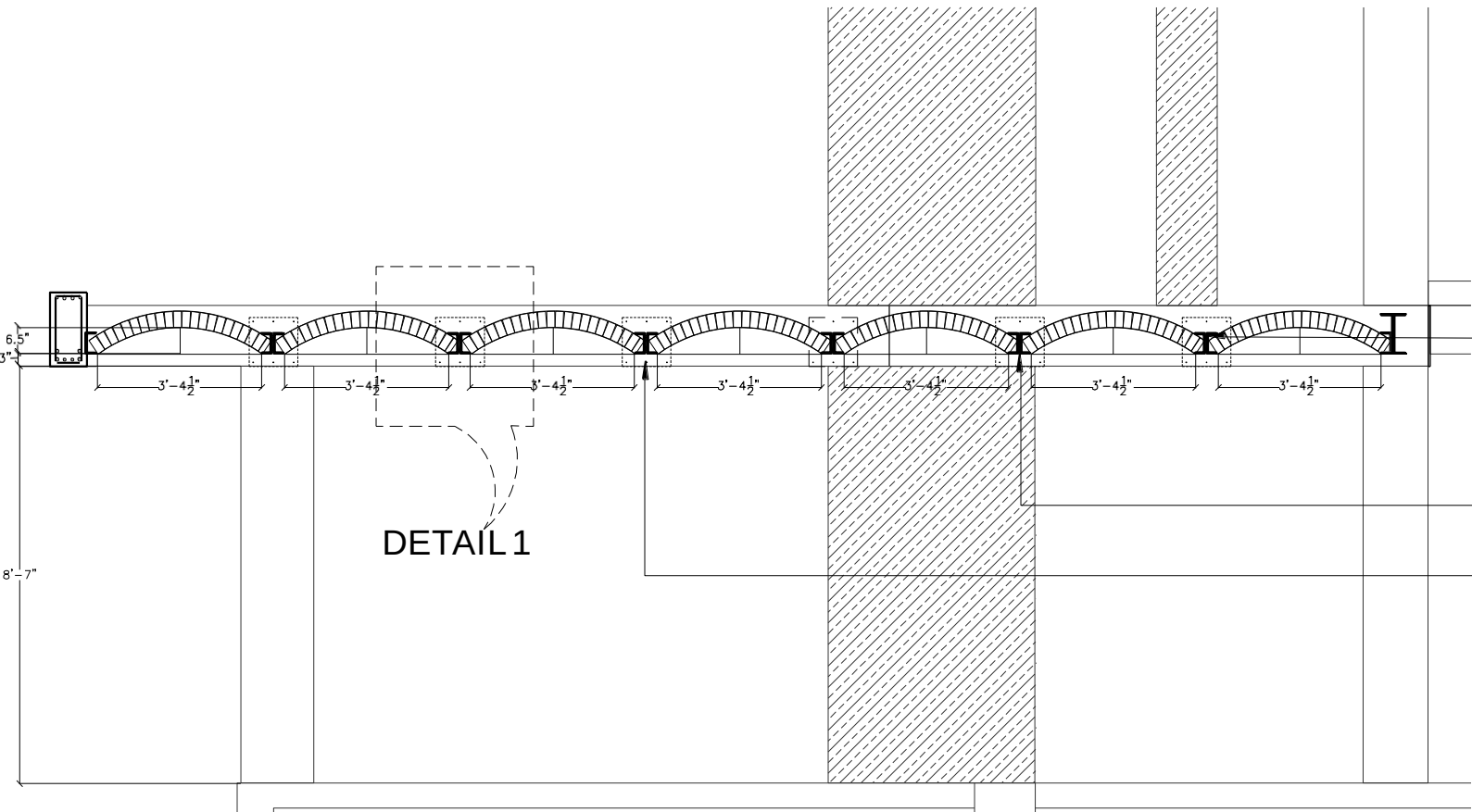
COMPOSITE STONE MASONRY WALL

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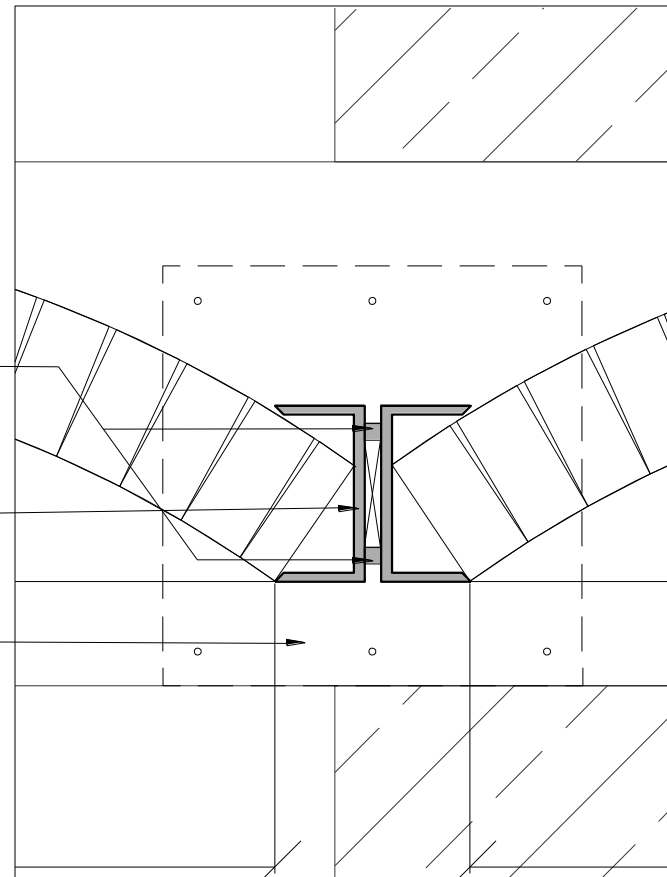


12MM BOX RODS

ISMC 125X65X5.3MM
[14 no's]

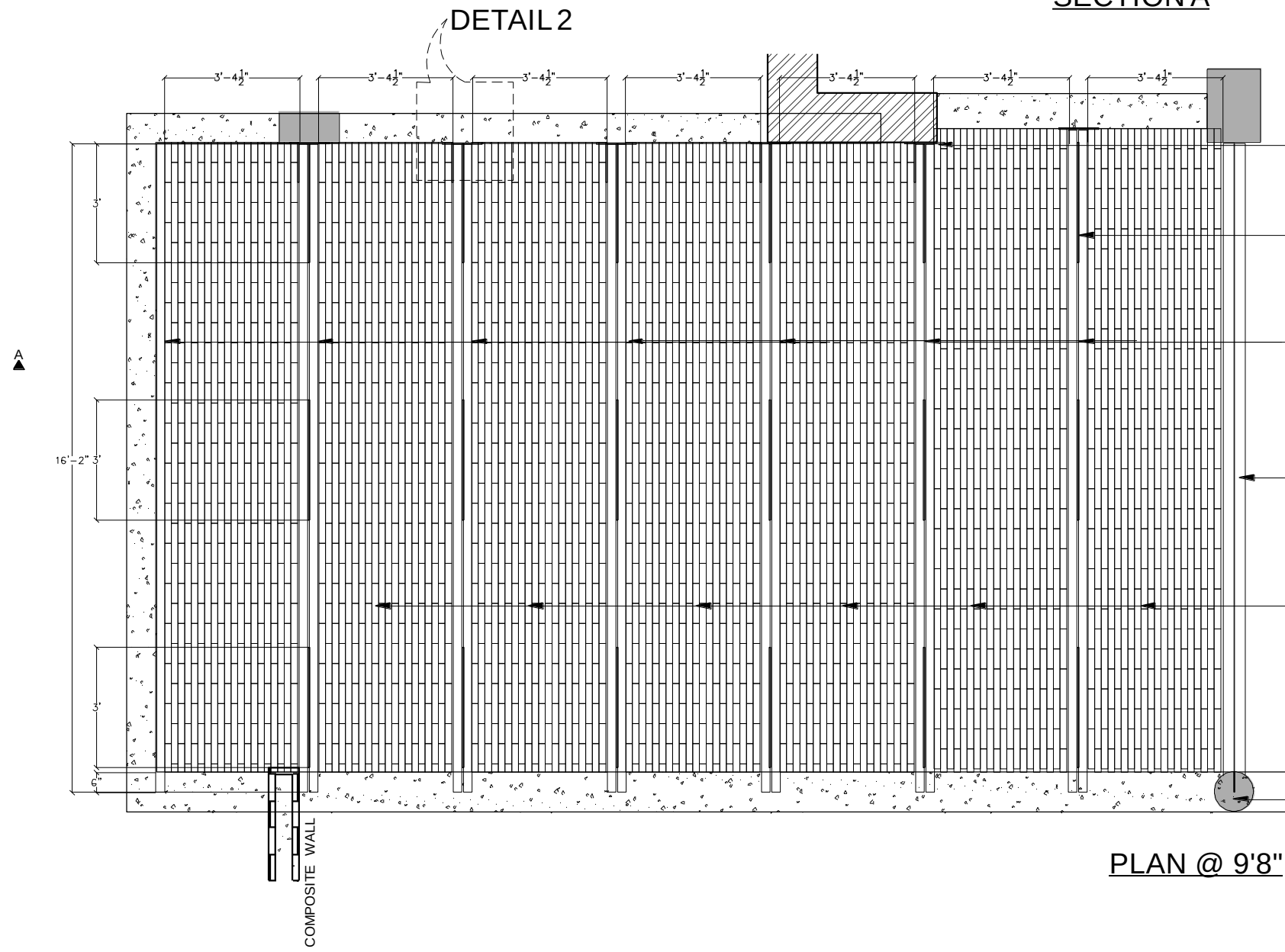
12MM THICK BASE
PLATE[10MM BOLTS]

SECTION A



DETAIL 1

1-1/12" -1'-0"



12MM THICK BASE PLATE
[10MM BOLTS]

12MM BOX RODS

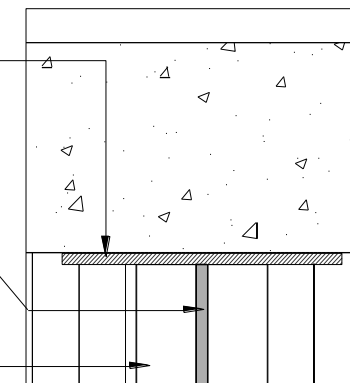
ISMC 125X65X5.3MM [14 no's]

EXISTING ISMC 250MM

HOLLOW BRICKS
[4"X12"X2"]

EXISTING STEEL
CIRCULAR COLUMN

PLAN @ 9'8"



DETAIL 2

1" -1'-0"

LEGENDS

SPECIAL NOTES

- THE REQUIRED NUMBER OF ISMC 125 X65X 5.3 IS '14 NOS'
- TOTAL NUMBER OF HOLLOW BRICKS REQUIRED ARE '2500 NOS'
- THE SPAN OF THE ONE JACK ARCH IS 3' 45"
- THE RISE OF JACK ARCH IS TO RATIO 1:6 i.e. 6.5"

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

CLIENT

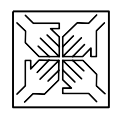
CONSULTANTS

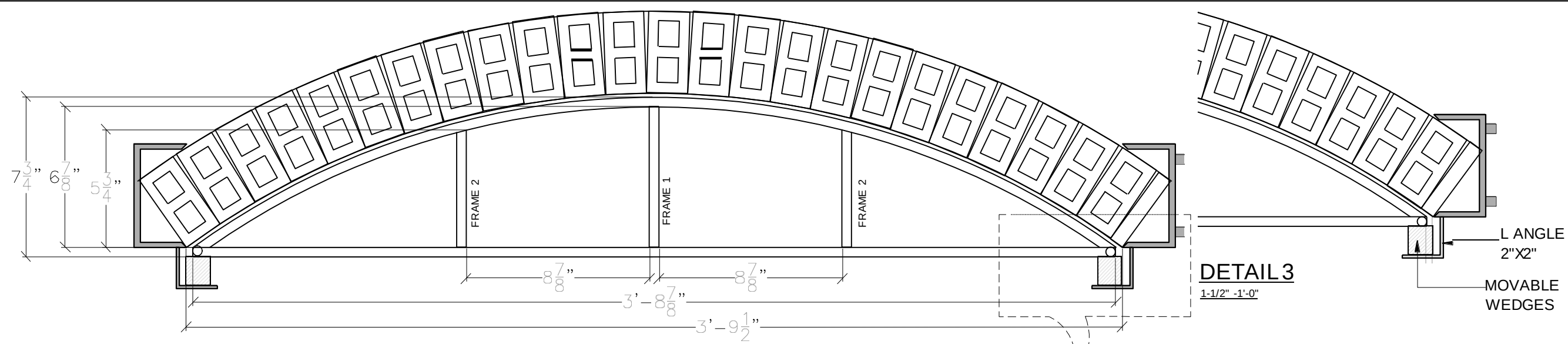
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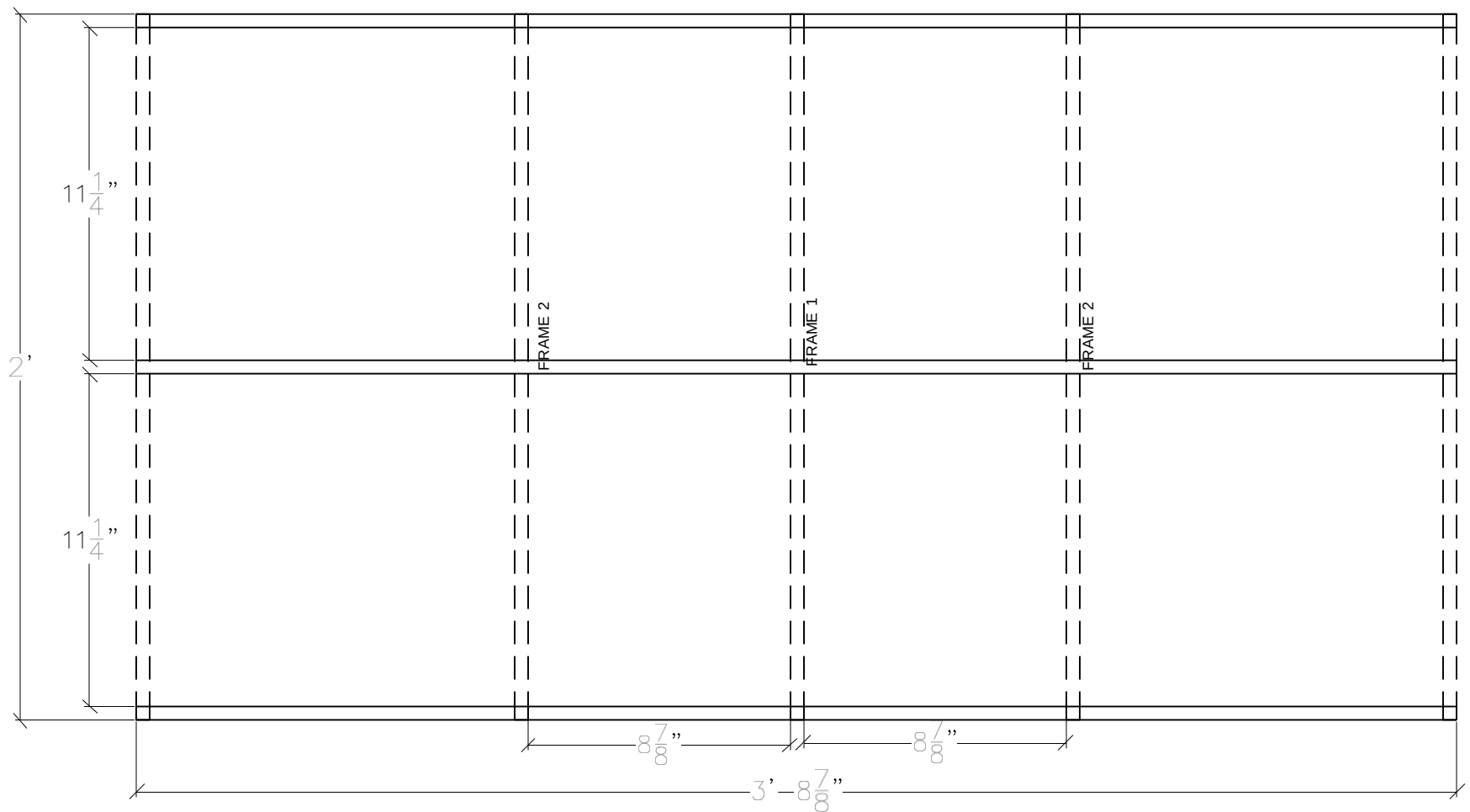
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DATE	SCALE	DRAWING NO.
DRAWN BY	CHECKED BY	

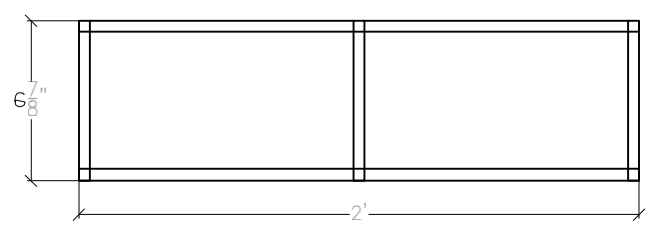




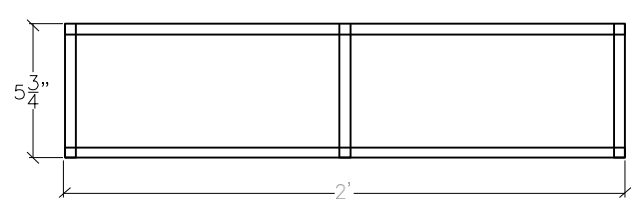
DETAIL 2
1-1/12" -1'-0"



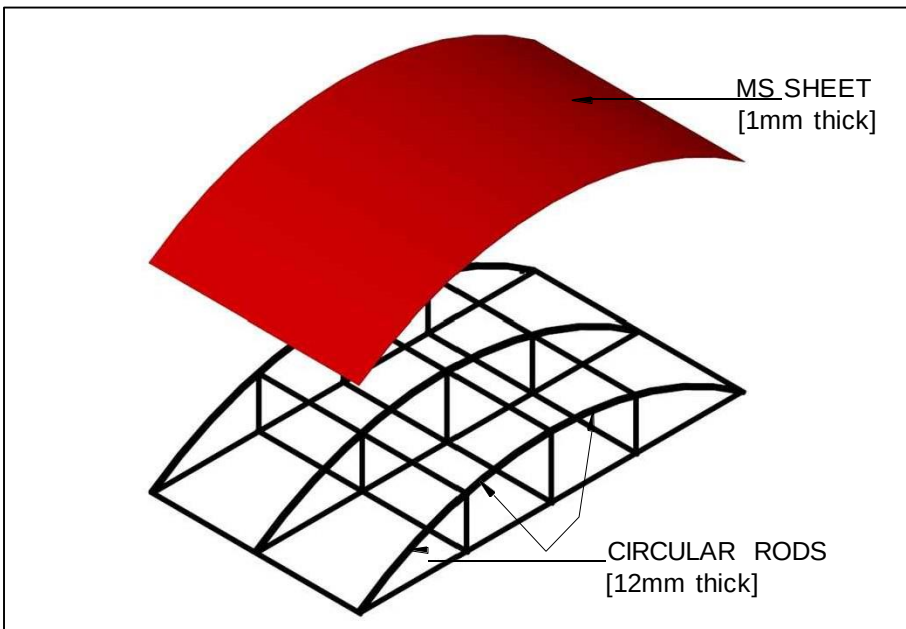
DETAIL 1
1-1/12" -1'-0"



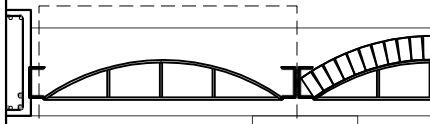
FRAME 1
1" -1'-0"



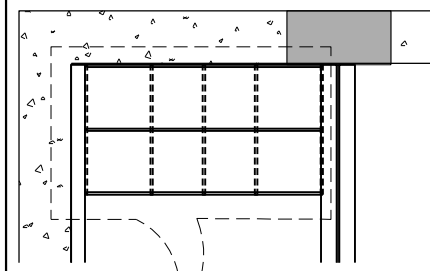
FRAME 2
1" -1'-0"



REFERENCE IMAGE



DETAIL 2



DETAIL 1

SPECIAL NOTES

- THE FORM WORK IS DONE WITH 12MM MS CIRCULAR ROD
- THE COVERING IS DONE WITH MS SHEET OF 1MM THICK [REFER THE REFERENCE IMAGE]
- THE ROD ARE WELDED TO EACH OTHER

KEYPLAN

PAPER SIZE		A3	NORTH
PROJECT			
CLIENT			
CONSULTANTS			
DRAWING NAME			
DRAWING INTENTION			
DRAWING DESCRIPTION			
DATE	SCALE	DRAWING NO.	
DRAWN BY	CHECKED BY		

MUD HANDS
Earth Architecture

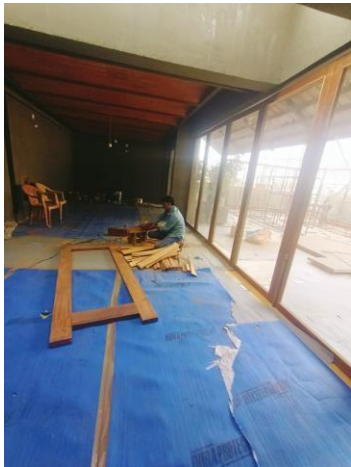
PROJECT NAME: PENTHOUSE
CLIENT: MR. RAJESH

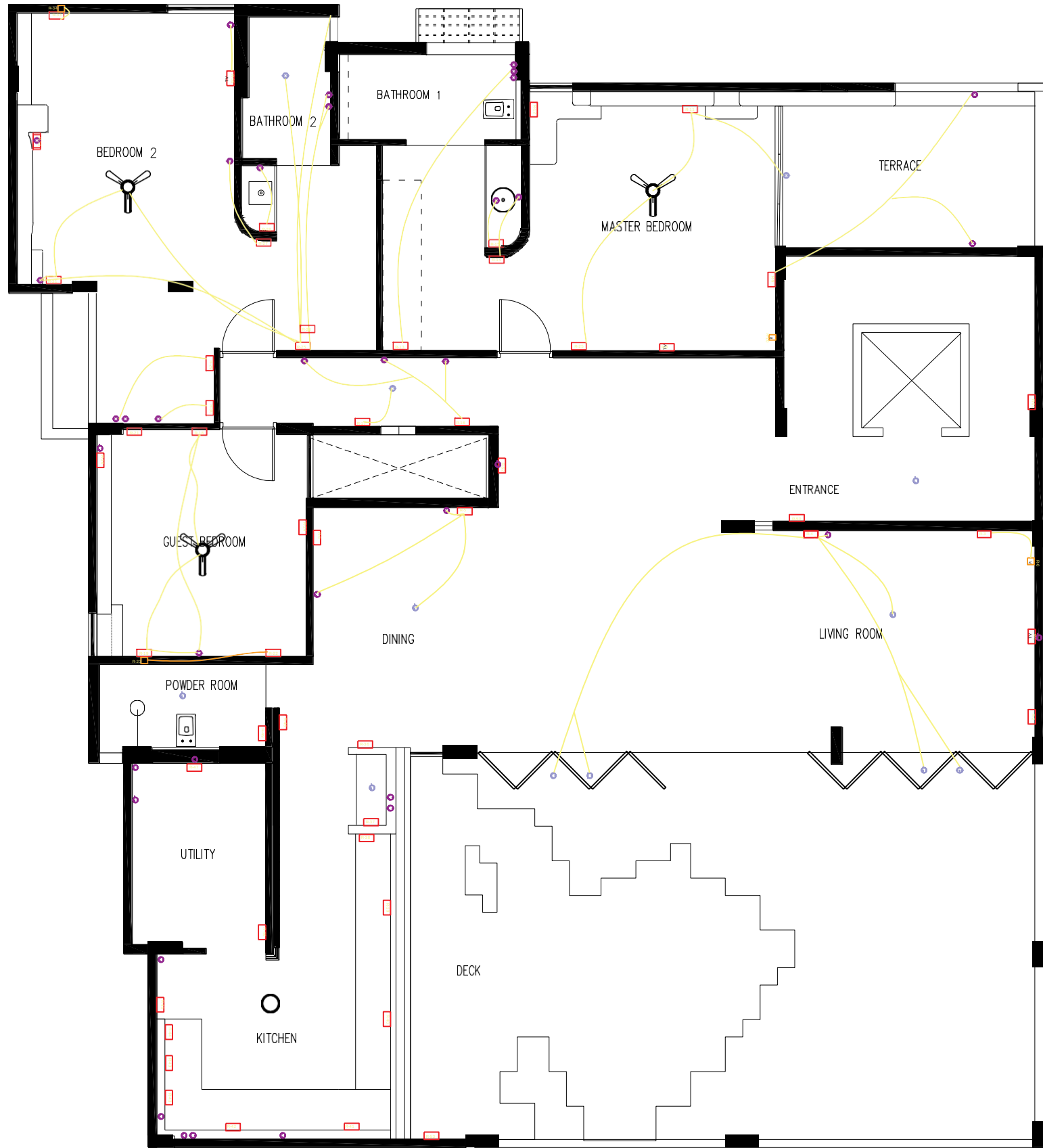
SITE DETAILS LOCATION: OPERA EPITOME ,J P NAGAR PHASE 5, J.P NAGAR ,
BENGALURU , KARNATAKA 560078

CONCEPT:The residence is on the fifth floor of the apartment building with open terrace.The idea was to play with exposed beams and lowered walls to make the space seem larger and to explore the concept of inside out.Different types of arches are explored



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ELECTRICAL LEGEND	
	Ceiling fan
	Wall light
	Ceiling light
	Electric point

R0		R13		R25		R37		R49	
R1		R14		R26		R38		R50	
R2		R15		R27		R39		R51	
R3		R16		R28		R40		R52	
R4		R17		R29		R41		R53	
R5		R18		R30		R42			
R6		R19		R31		R43			
R7		R20		R32		R44			
R8		R21		R33		R45			
R9		R22		R34		R46			
R10		R23		R35		R47			
R11		R24		R36		R48			
R12									

1		AC Switch
2		Switch
3		1-way switch
4		2-way switch
5		Single pole switch
6		Fan regulator
7		Wall switch

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT

CLIENT

Mr. Rajesh

CONSULTANTS

DRAWING NAME

ELECTRICAL LAYOUT PLAN

DRAWING INTENTION

DRAWING DESCRIPTION

DATE	SCALE	DRAWING NO.
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JACK ARCH



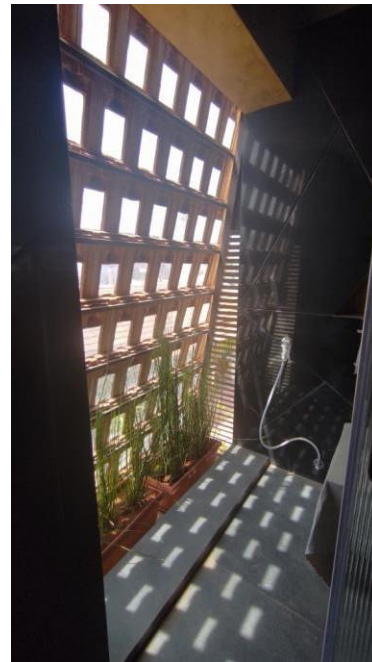
SMOOTH OXIDE FINISH



MOSAIC ON KITCHEN TABLE TOP



BOTTLE WALL



SLOPING ROOF OF BATHROOM



AATHANGUDI TILES
FOR FLOORING



RAT TRAP BOND
USED BELOW



SMOOTH OXIDE
FINISH IN
DIFFERENT COLOUR



SLIDE FOLD DOORS



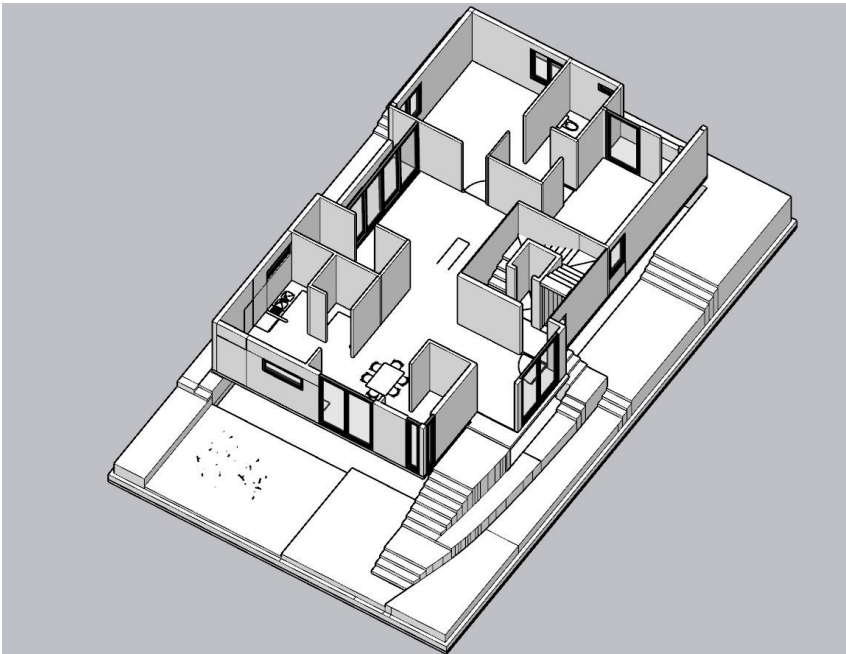
ARCHES



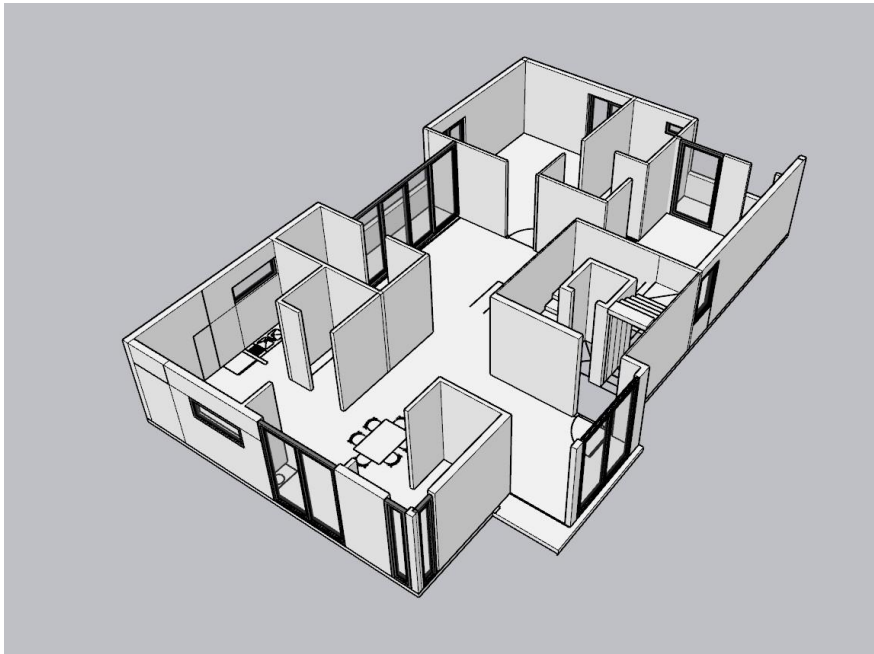
WPC DECKING AND LANDSCAPE

PROJECT NAME: CLASSIC ORCHARD RESIDENCE
CLIENT: MR. RAGHAVAN

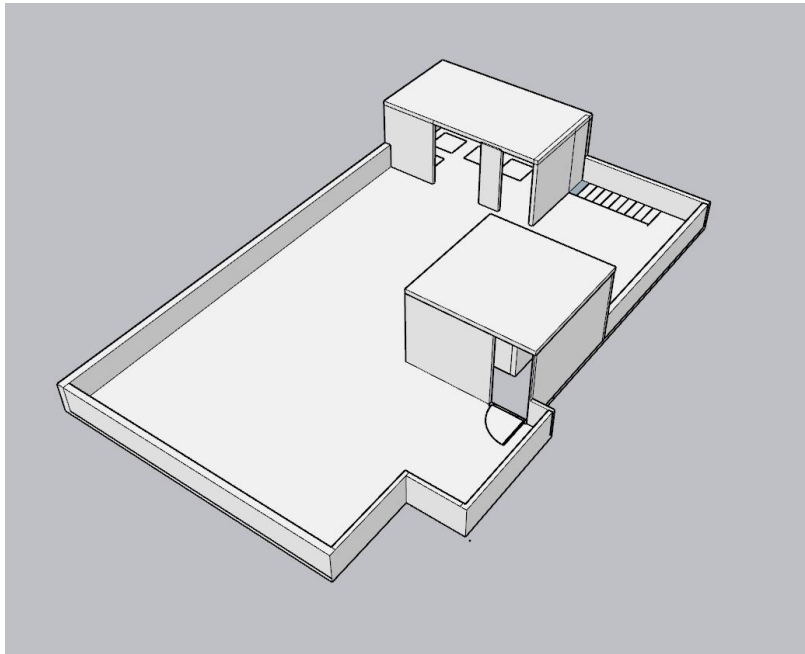
SITE DETAILS LOCATION: JP NAGAR 1ST PHASE , BENGALURU 560078.
SITE AREA: 2700 SQFT



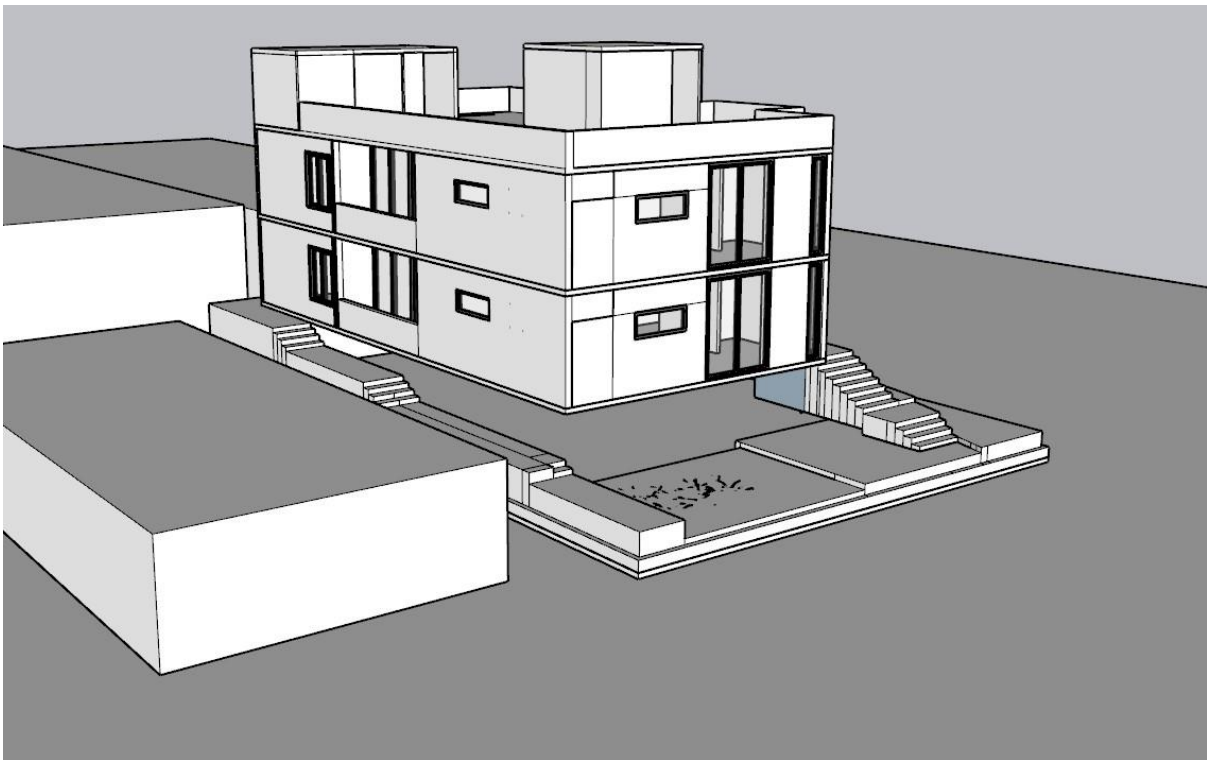
GROUND FLOOR VIEW



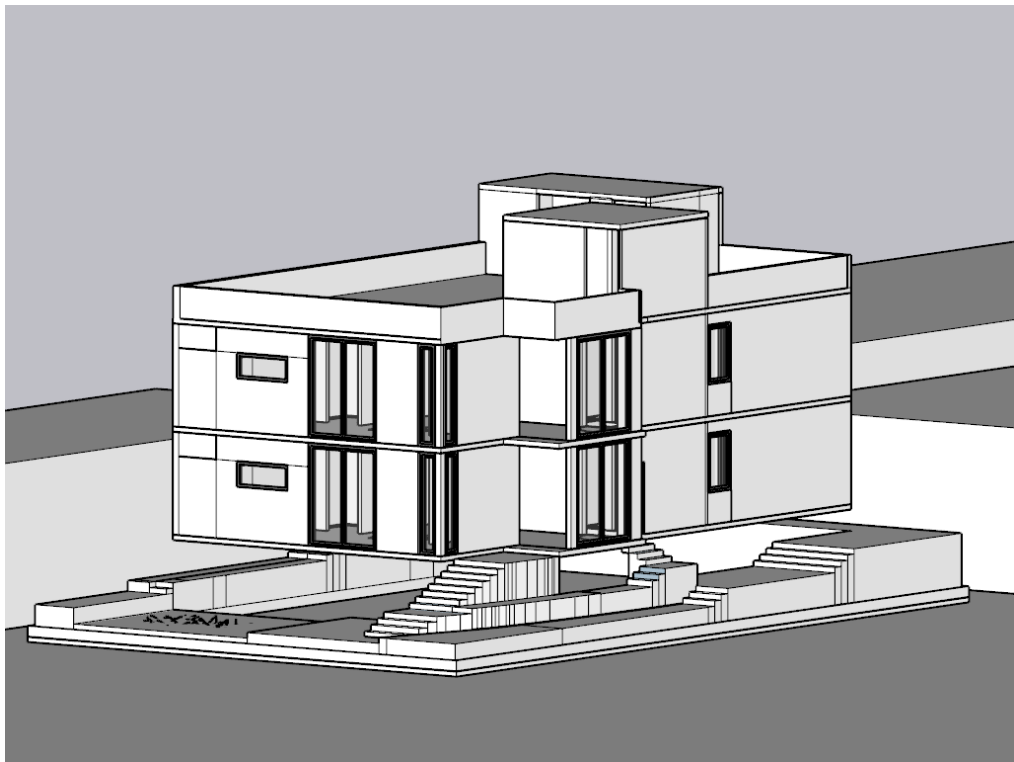
FIRST FLOOR VIEW



TERRACE VIEW

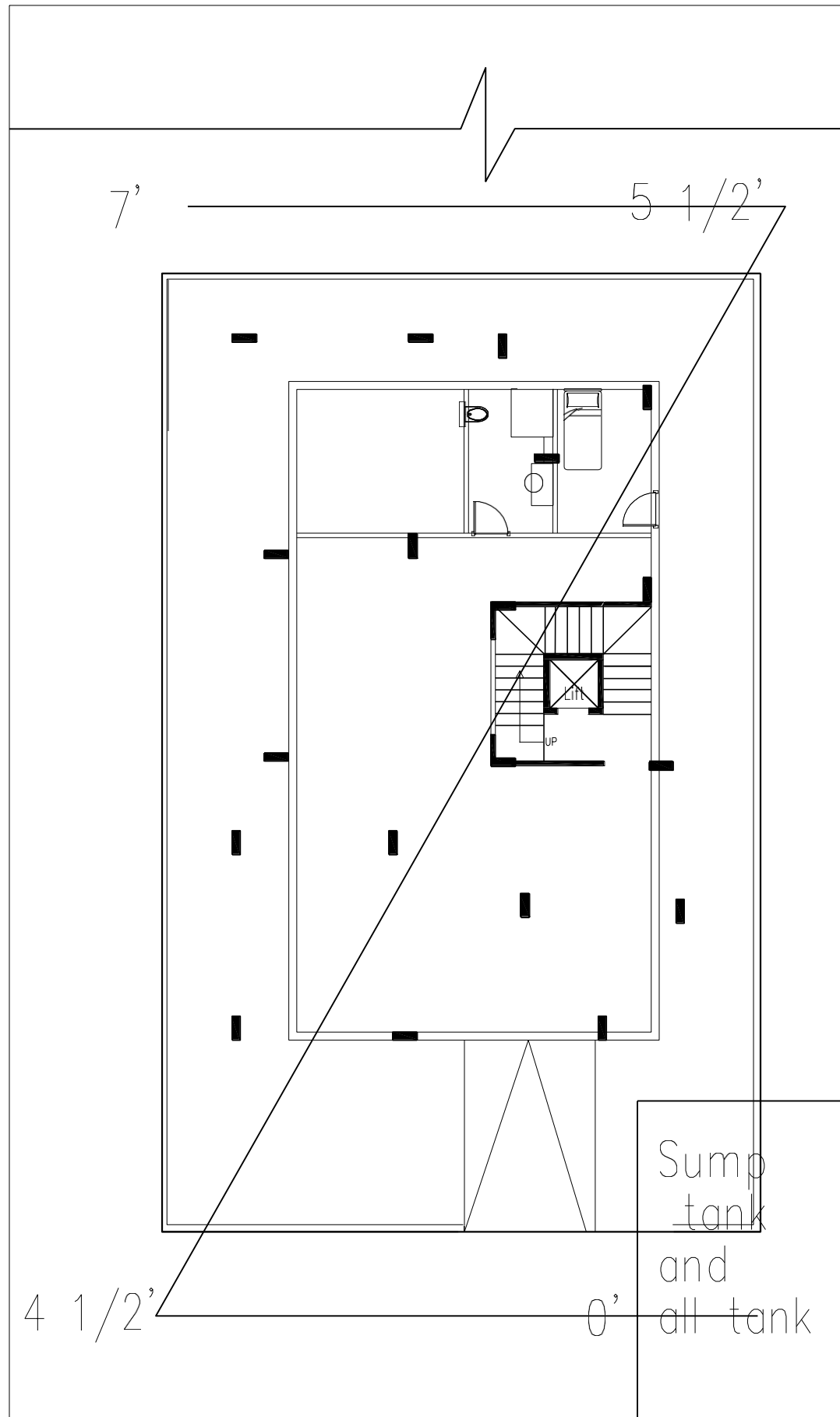


ISOMETRIC VIEW

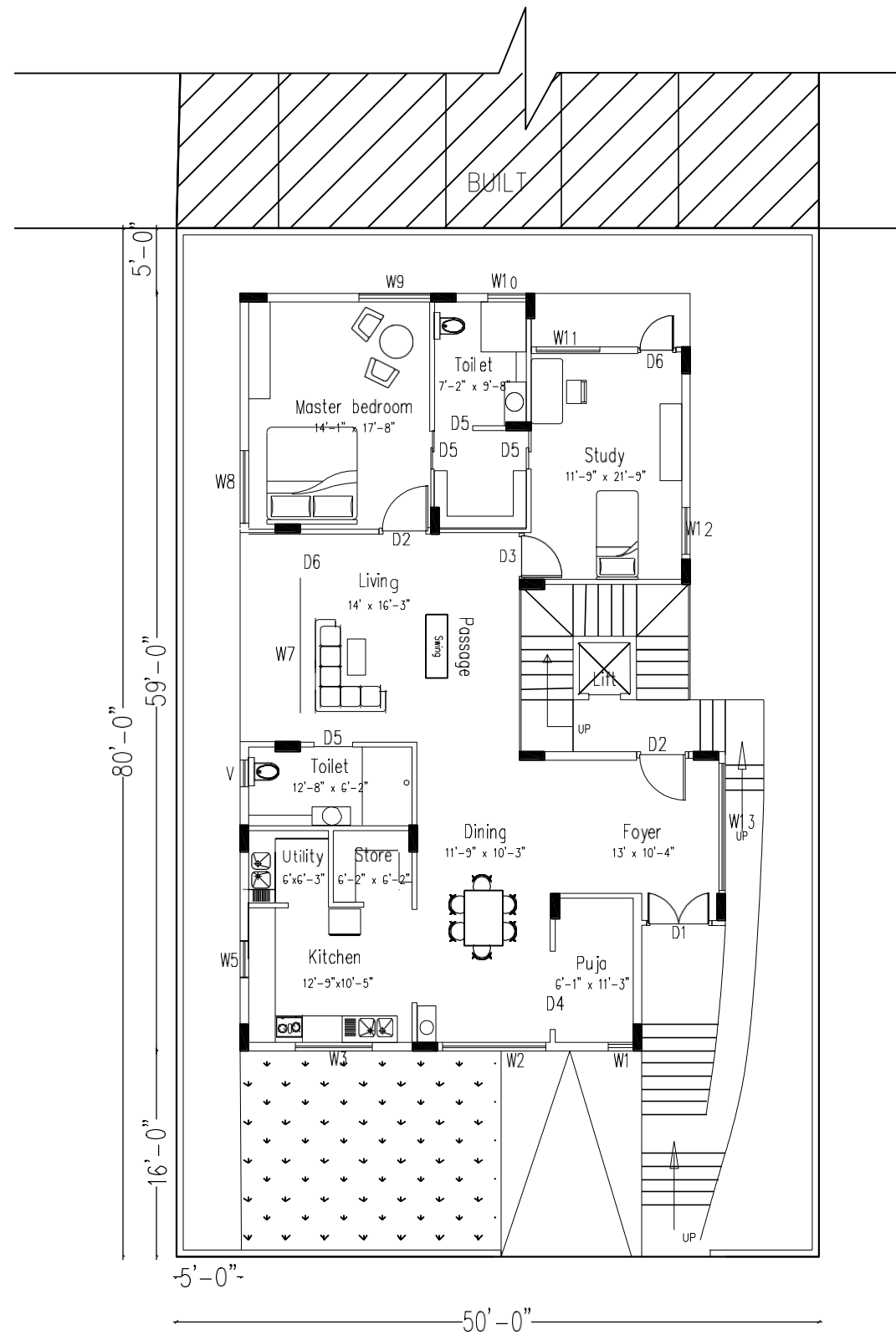


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CLASSIC ORCHARDS – BASEMENT FLOOR PLAN



CLASSIC ORCHARDS – GROUND FLOOR PLAN

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
		

PROJECT

CLASSIC ORCHARD

CLIENT

Mr.Raghavan

CONSULTANTS

DRAWING NAME

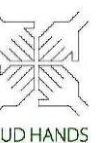
PLAN REVISION

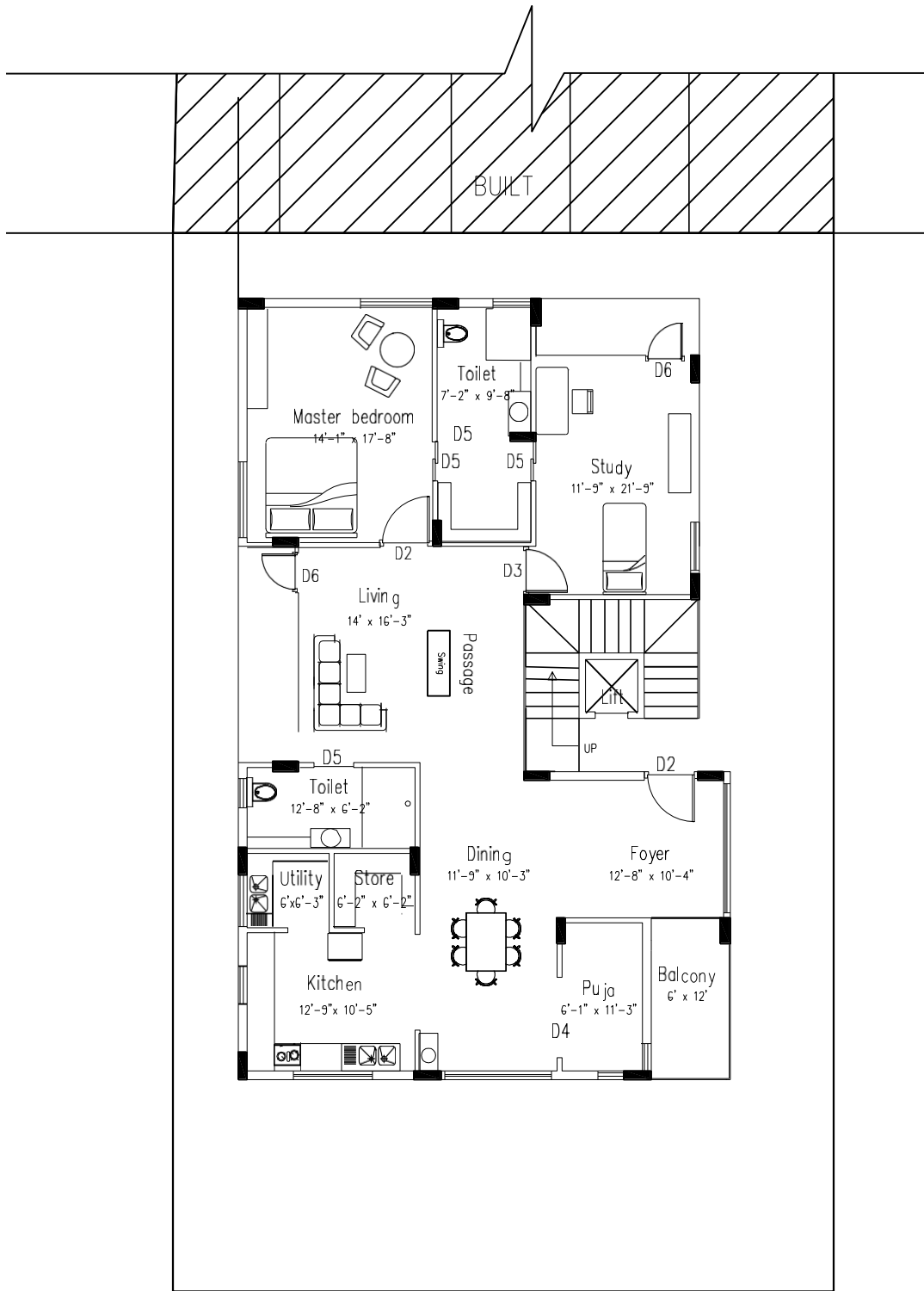
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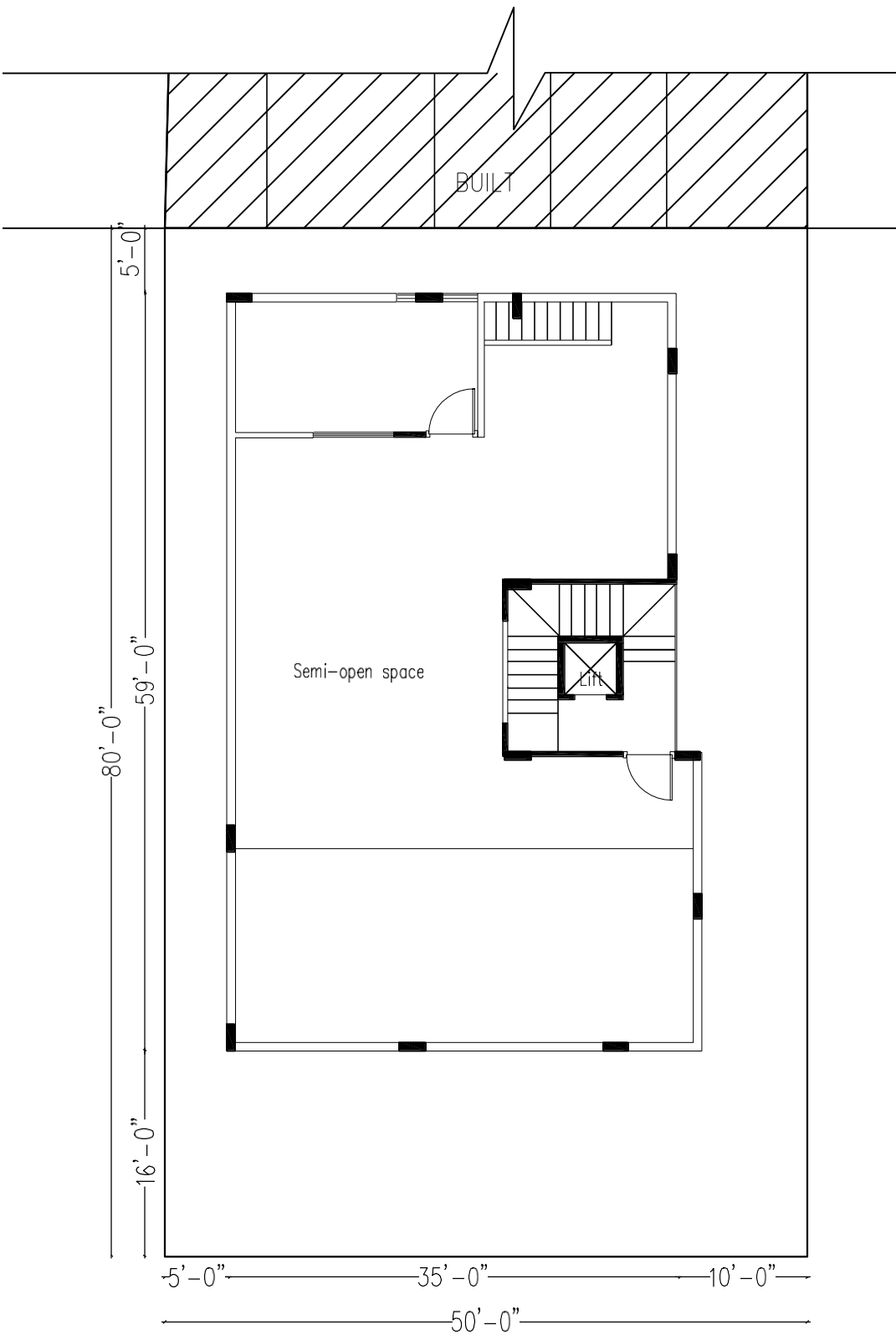
DATE	SCALE	DRAWING NO.
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MUD HANDS
Earth Architecture





CLASSIC ORCHARDS- FIRST FLOOR PLAN



CLASSIC ORCHARDS - TERRACE FLOOR PLAN

LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE

A3

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PROJECT

CLASSIC ORCHARD

CLIENT

Mr.Raghavan

CONSULTANTS

DRAWING NAME

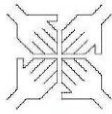
PLAN REVISION

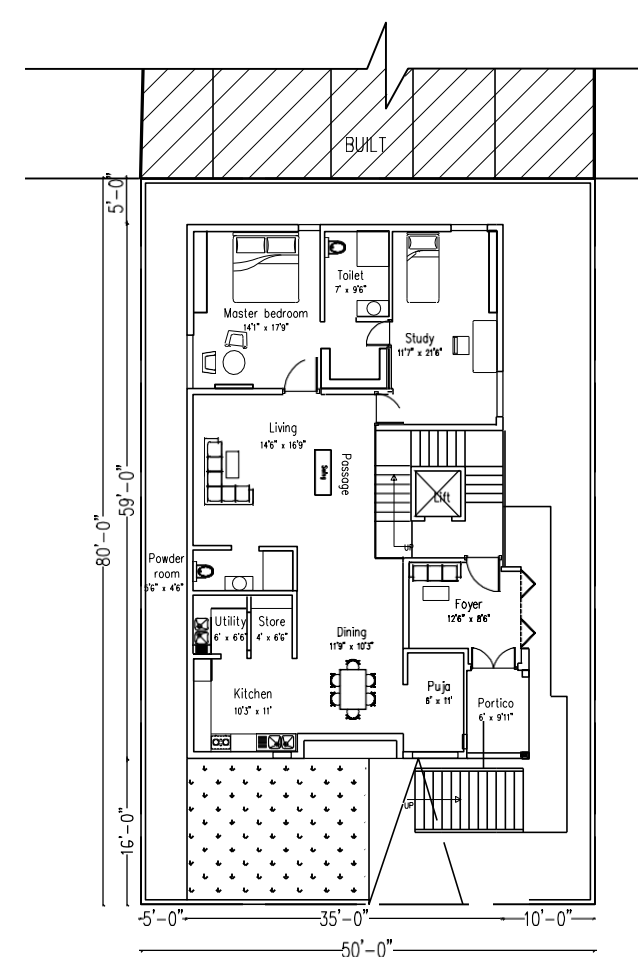
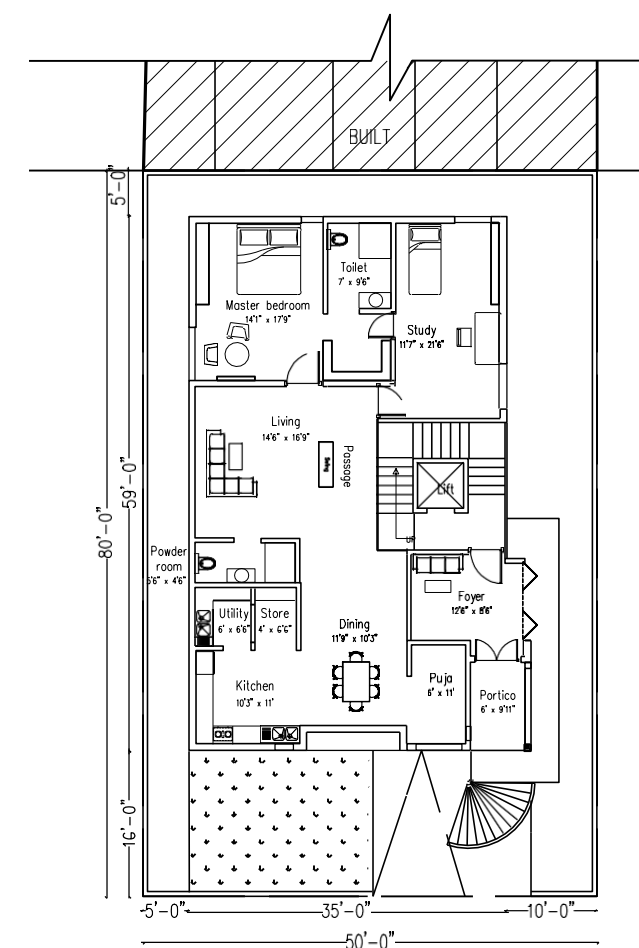
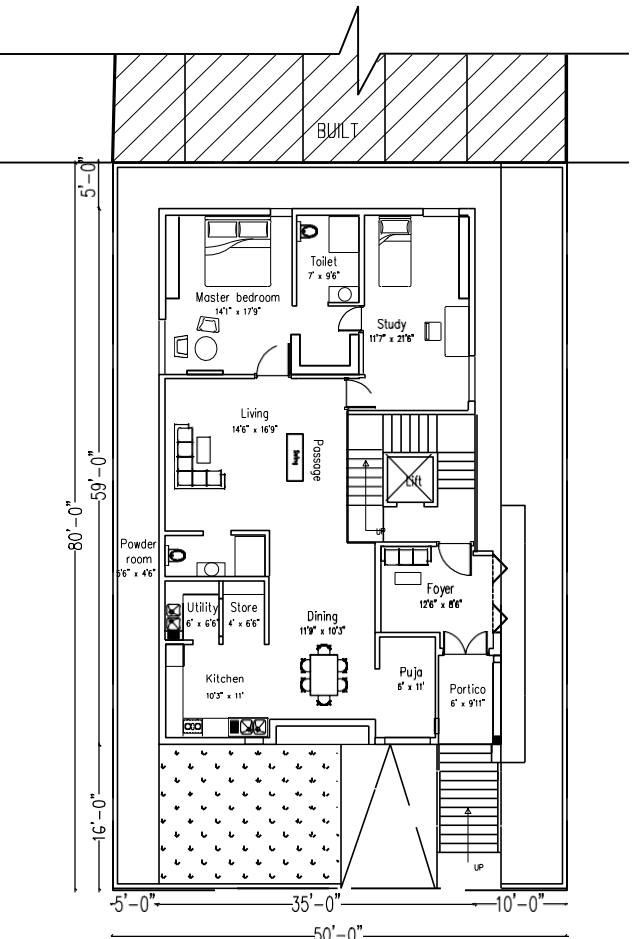
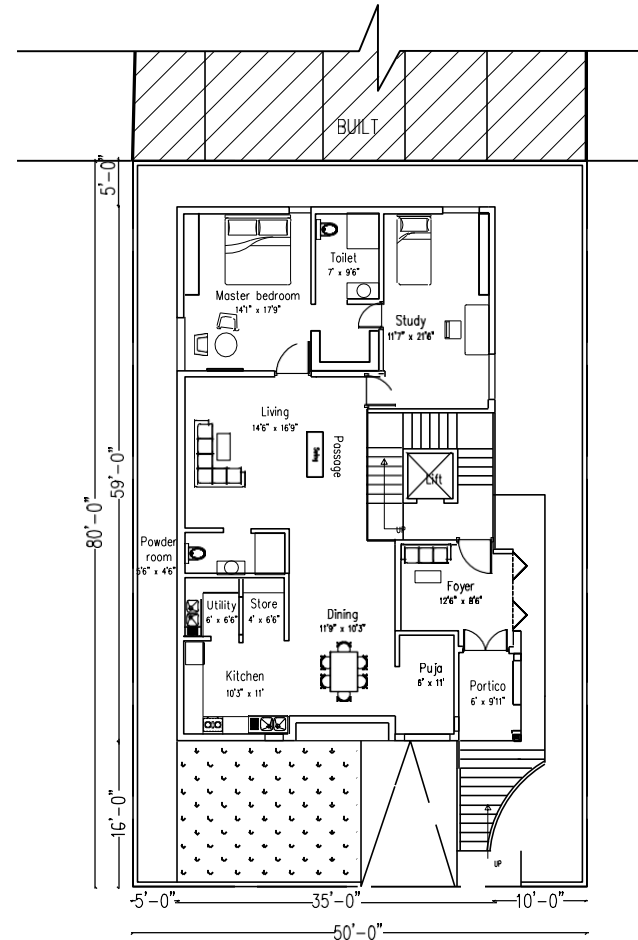
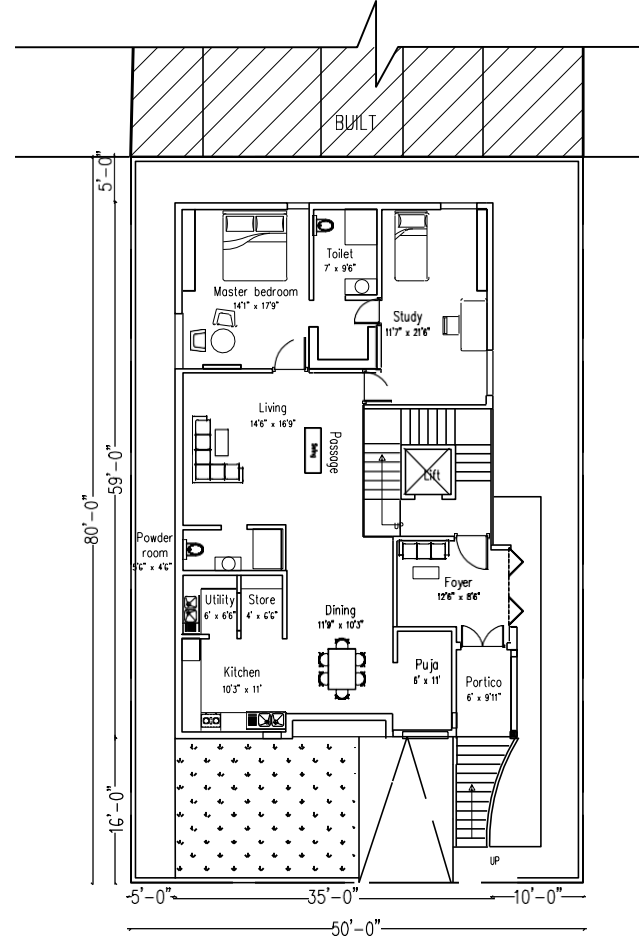
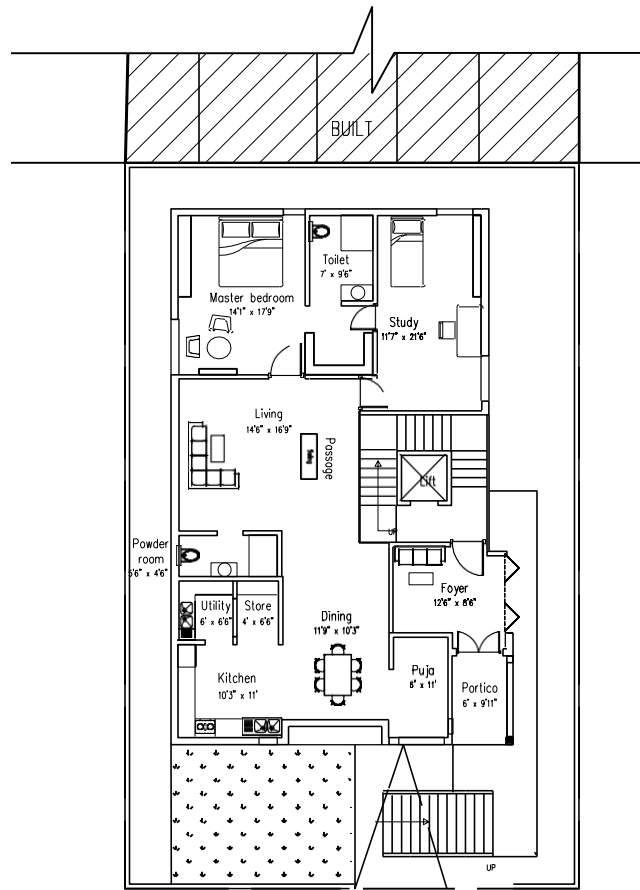
DRAWING INTENTION

DRAWING DESCRIPTION

DATE	SCALE	DRAWING NO.
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MUD HANDS
Earth Architecture


MUD HANDS



LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT
CLASSIC ORCHARD
CLIENT

Mr.Raghavan
CONSULTANTS

DRAWING NAME
Staircase Options
DRAWING INTENTION

DRAWING DESCRIPTION

DATE SCALE **1:10** DRAWING NO.

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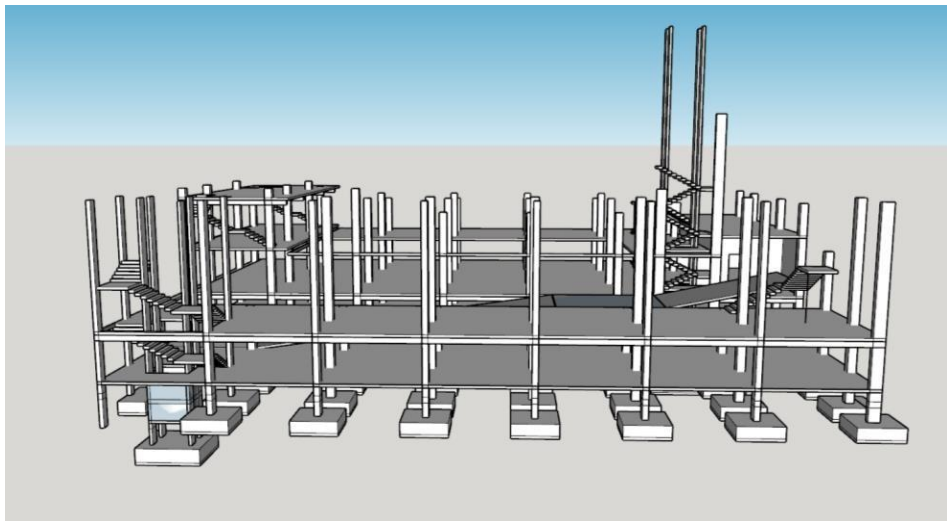
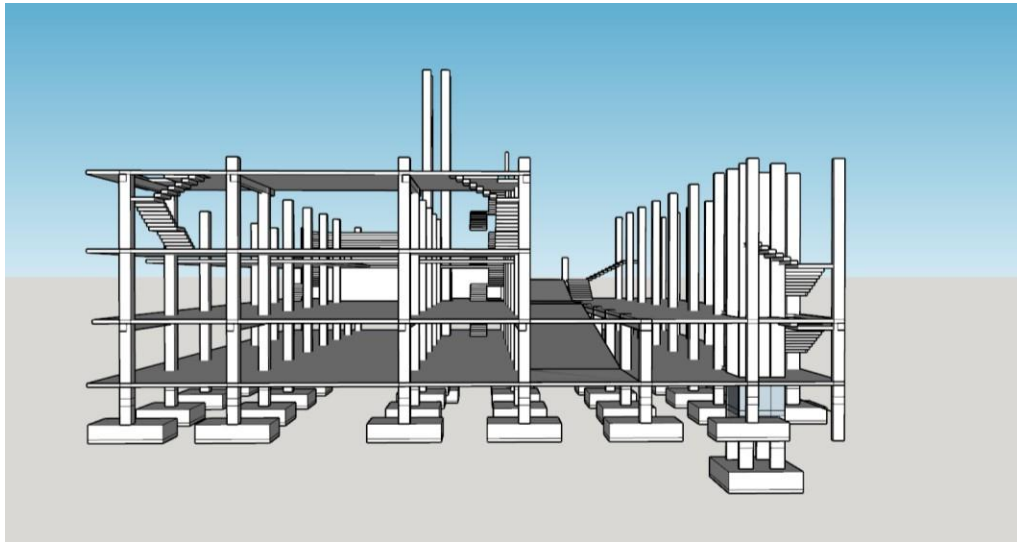
MUD HANDS
Earth Architecture



PROJECT NAME: KALAMANTAPA (CONVENTIONAL HALL)
CLIENT: MR. RAMAKRISHNA SHETTY CHARITIES

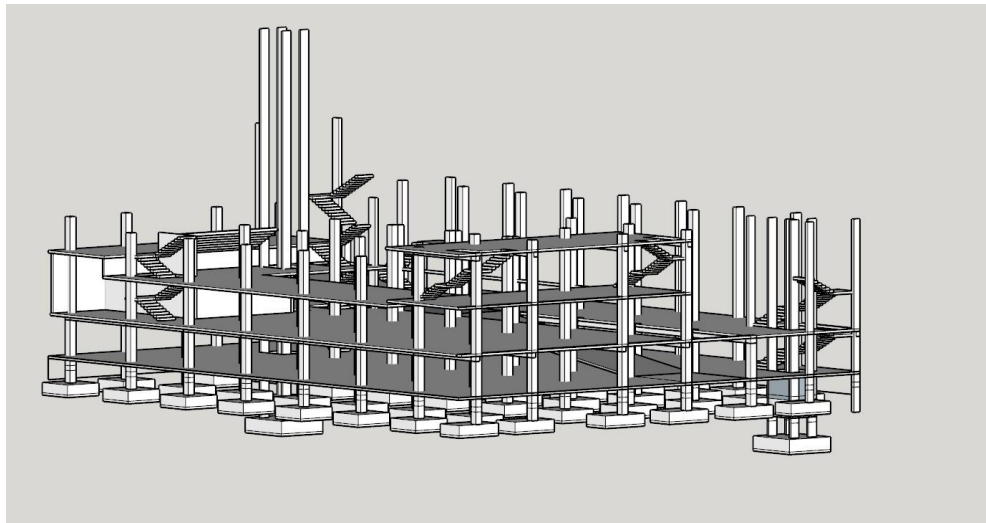
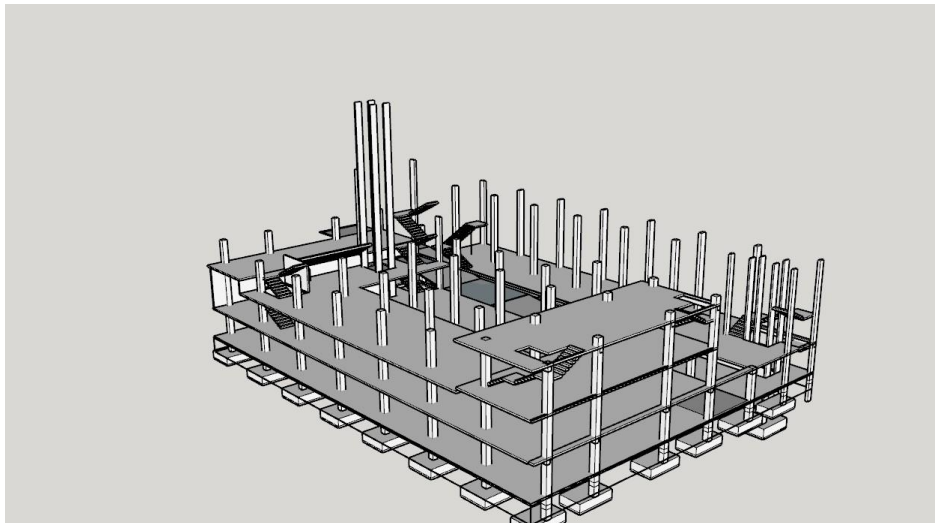
SITE LOCATION: KOLLEGALA TALUK, CHAMARAJANAGARA DISTRICT,
KARNATAKA

ABOUT: IT HAS TWO UNITS ONE IS COMMERCIAL AND THE OTHER IS
CONVENTIONAL HALL

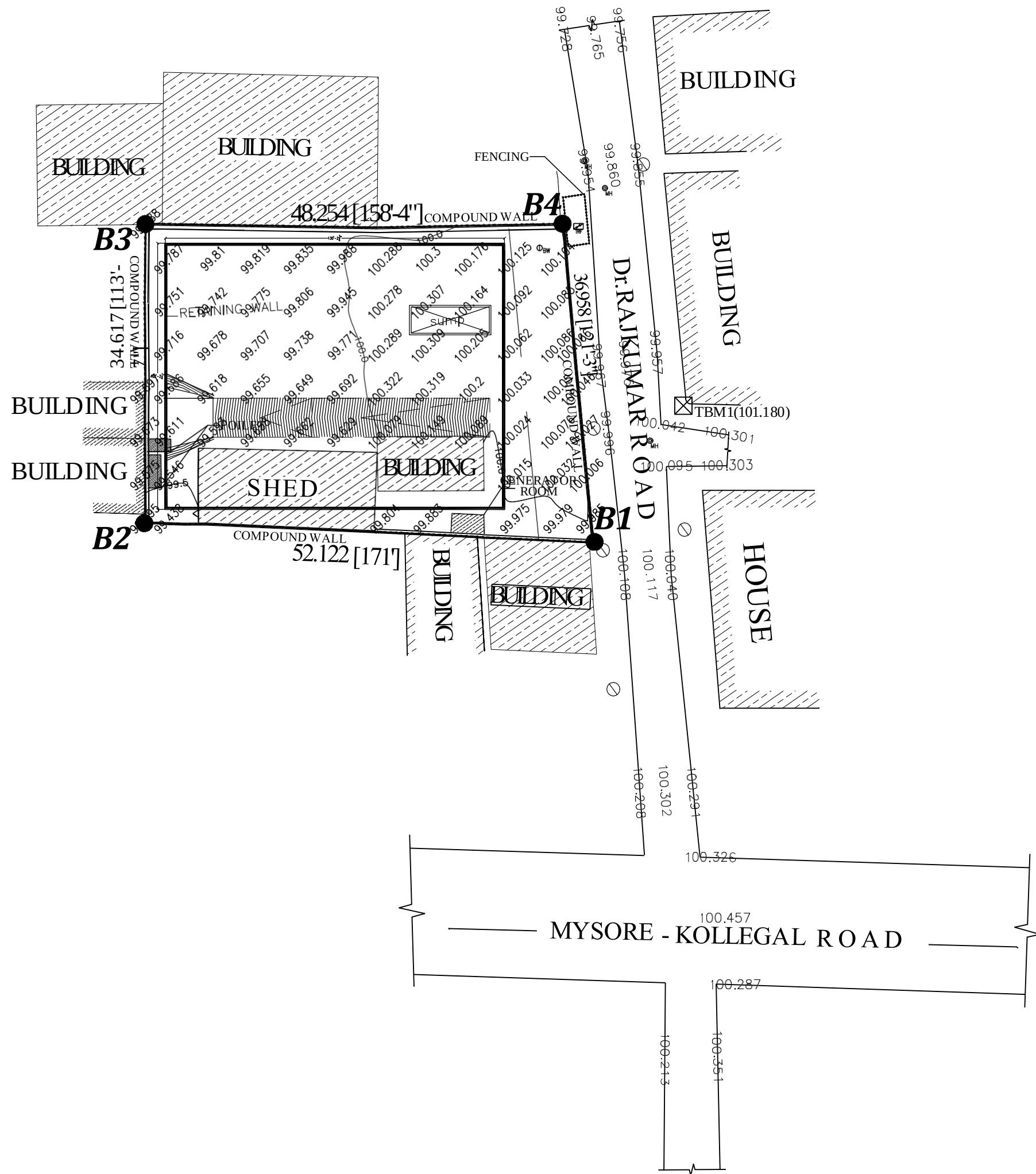


TO UNDERSTAND THE STRUCTURE AND THE LEVELS OF THE SLAB AND HOW EACH
LEVEL IS CONNECTED

FOOTING CONSTRUCTION IS ON PROCESS



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LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE **A3** NORTH

PROJECT

KALAMANTAPA

CLIENT

CONSULTANTS

DRAWING NAME

IMPOSED PLAN

DRAWING INTENTION

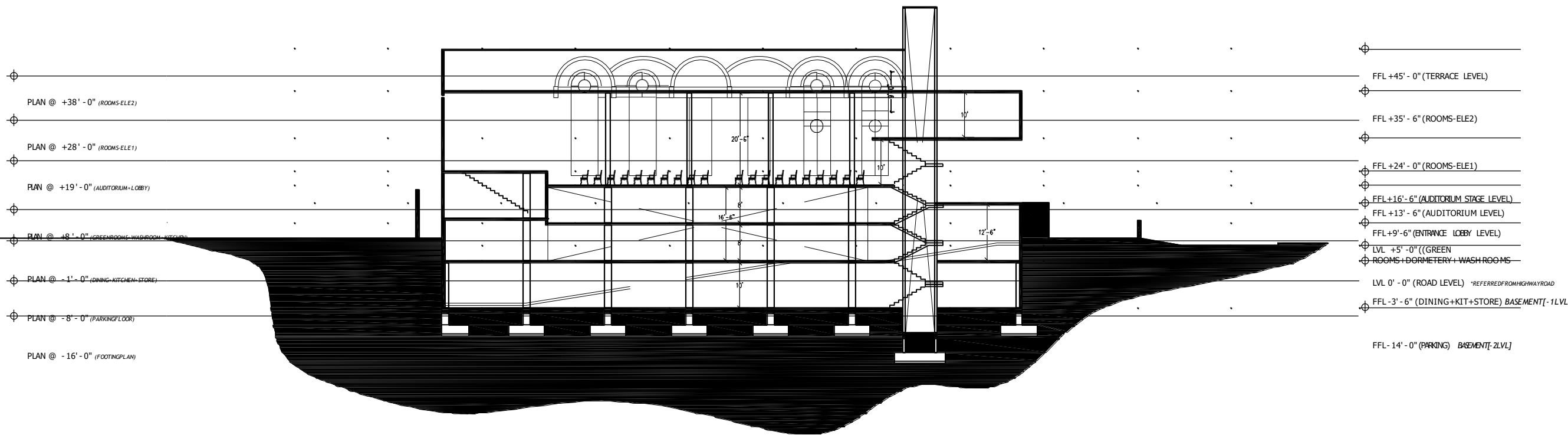
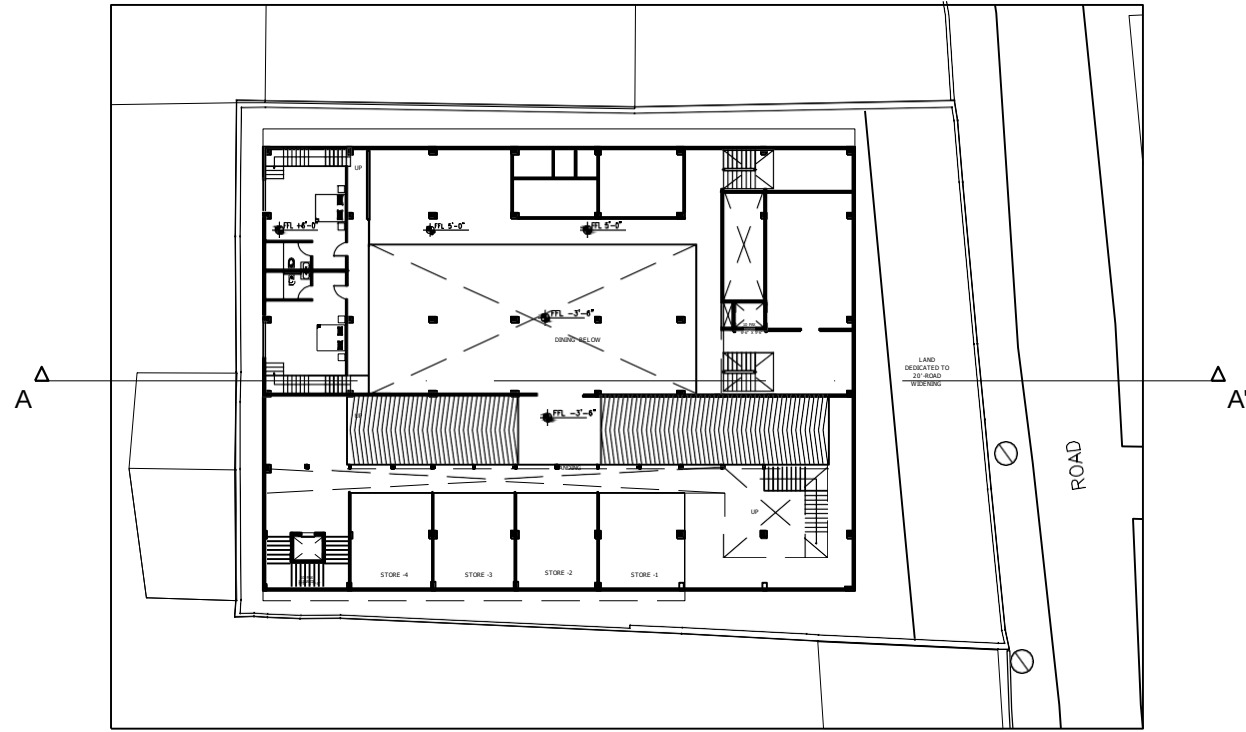
DRAWING DESCRIPTION

DATE	SCALE	DRAWING NO.
DRAWN BY	CHECKED BY	

MUD HANDS
Earth Architecture



KEY PLAN



LEGENDS

SPECIAL NOTES

KEYPLAN



PAPER SIZE **A3** NORTH

PROJECT
KALAMANTAPA
CLIENT

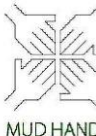
CONSULTANTS

DRAWING NAME
REVISED SECTION
DRAWING INTENTION

DRAWING DESCRIPTION

DATE	SCALE	DRAWING NO.
DRAWN BY	CHECKED BY	

MUD HANDS
Earth Architecture



PROJECT NAME: TWIN RESIDENCE
CLIENT: MR. VINOD & RAJESH

SITE DETAILS LOCATION: NO 91, MODEL HOUSE ROASD, NEAR KRISHNA RAO PARK, BASAVANGUDI, BENGALURU 560078.
PLOT AREA: 5090 SQFT

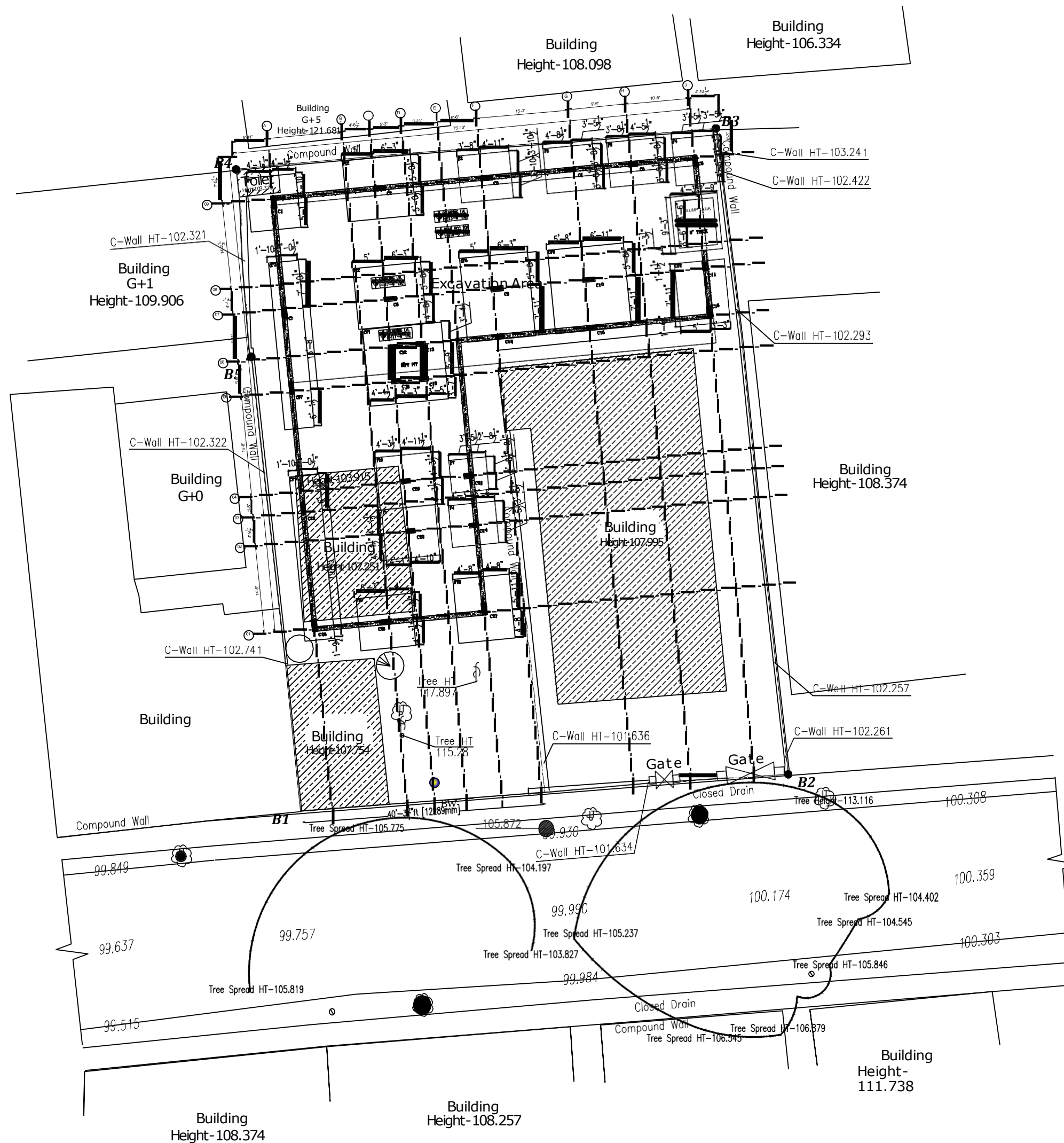
ABOUT:
IT'S A RESIDENCE FOR FOR BROTHERS WHICH HAS TWO UNITS
THE MAJOR CHALLENGE IS THE ADJACENT BUILDINGS



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DURING THE TIME OF DEMOLISION



LEGENDS

SPECIAL NOTES

KEYPLAN

PAPER SIZE	A3	NORTH
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PROJECT	TWIN RESIDENCE
CLIENT	VINOD & RAJESH
CONSULTANTS	

DRAWING NAME	Super Imposed plan
DRAWING INTENTION	

DRAWING DESCRIPTION

DATE	SCALE	DRAWING NO.
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STAGES OF EXCAVATION



- SURVEYORS ARE MARKING THE POINTS TO BE EXCAVATED FOR THE BASEMENT



JCB HAD BEEN CALLED FOR THE EXCAVATION



AND IT HAD BEEN DONE



A COMPOUND WALL OF THE NEIGHBORING SITE WAS COLLAPED AND THAT PROBLEM HAD BEEN RECTIFIED



AGAIN SURVEYORS HAD BEEN CALLED FOR MARKING CENTER LINE OF COLUMN AND CORNERS OF THE FOOTING



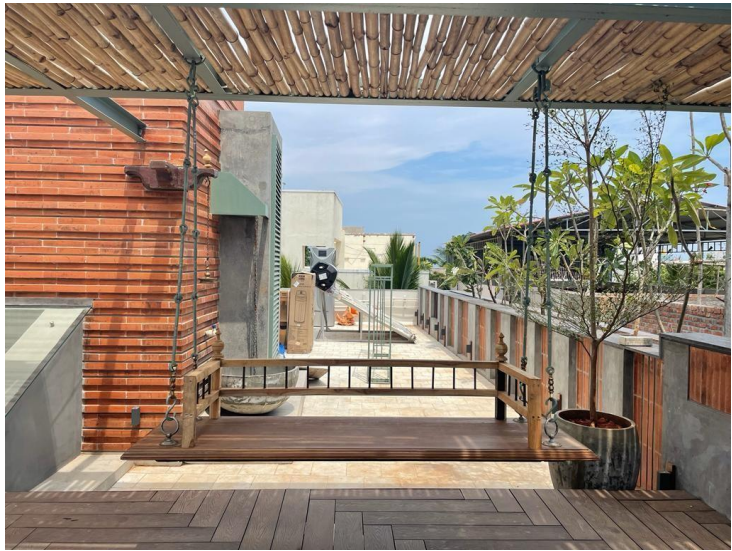
COLUMN HAS BEEN PLACED AND RETAINING WALL, FOOTING CONSTRUCTION IS GOING ON



PROJECT NAME: NEELANGARAI GUEST HOUSE
CLIENT: MR. VINOD AND RAJESH

SITE LOCATION: DEV’S ARORA , SINGARAVELAN 7TH CROSS ST, CHINNA
NEELANGRAI KUPPAM, NEELANAGARAI, CHENNA-41

ABOUT:
IT’S A RENOVATION PROJECT.
THE MAIN CHALLENGE WAS THE FURNITURE WHICH
CLIENT ALREADY HAD AND WE HAVE TO DESIGN ACCORDING
TO THAT



SITE PICTURES

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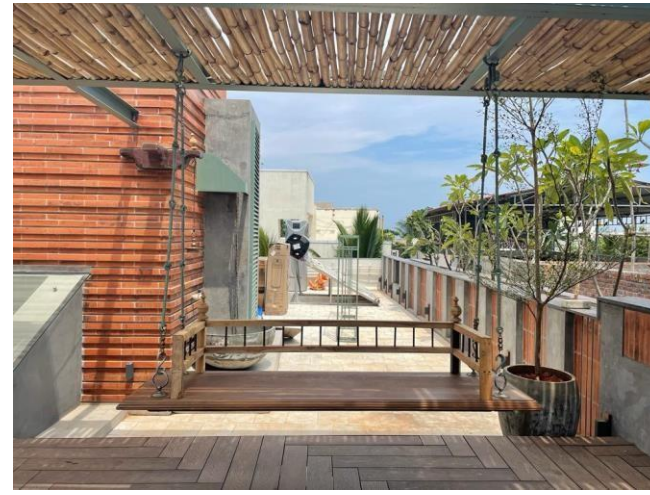




OLD KART WAS TAKEN AND
MADE AS A WASH BASIN



TENSEGRITY
LAMP WAS
MADE



BAMBOO USED FOR PERGOLA
AND WBC USE FOR DECK



TRIPODAL FANS



PLANTS FOR LANDSCAPE



BAMBOO USED FOR PERGOLA



POTS FOR LANDSCAPE



RODS ARE WELDED FOR GABION WALL



BATHROOM PICTURES



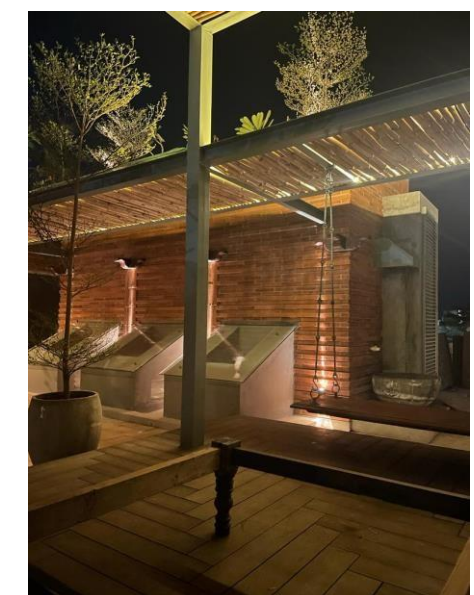
OLD WOODEN PILLARS HAD BEEN
REFURBNISED AND MADE INTO A
LAMP



GLASS FIXING FOR
THE PARTITION OF
WET AND DRY AREA
IN BATHROOM

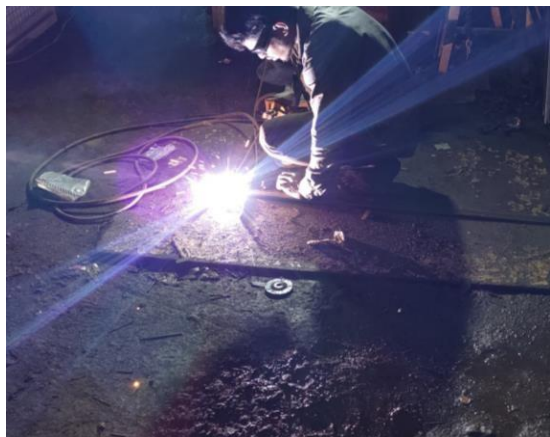


TERRACE PICTURES



TENSEGRITY LAMP

- Tensegrity, or tensile integrity, describes a system of isolated, compressed components within a network of chords that are under continuous tension. In a pure tensegrity structure, these components do not touch but experience compression nonetheless.
- It's hard to believe that strings could be made to support compressive loads. We can imagine it suspending a load using its tensile strength —like your classic crane. But chords aren't able to support compression on their own. However, with the right setup and balancing, they can suspend a system of components that are under compression



Step 1: 12mm CIRCULAR RODS ARE TAKEN AND THEY'RE FABRICATED AT TOP AND BOTTOM TO MACHINE BEND IT TOGETHER



Step 2: AFTER THE BENDING IS DONE INTO CIRCULAR AND OVAL IT'S SEPARATED
Step 3: THEN OVAL ROD WILL BE FABRICATED IN THE DIA ROD OF CIRCULAR ROD



Step 4: THEN HOLES ARE DRILLED IN X AND EYE HOOKS ARE ATTACHED IN THE HOLES AND STINGS ARE TENSIONED

CIRCLE RING

OVAL RING

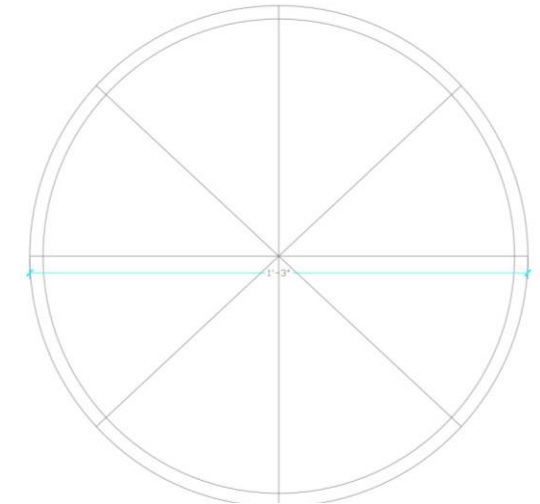
OVAL RING

CIRCLE RING

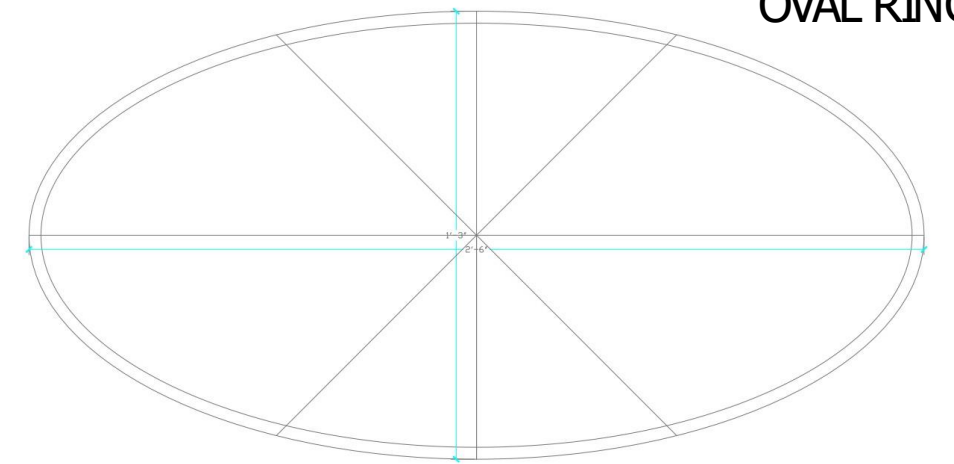
TENSEGRITY BUFFET LAMP



CIRCLE RING



OVAL RING



PROJECT: SOUTH CANOPY
CLIENT: OPERA HOMES
LOCATION: JP NAGAR, BANGALORE

TYPE: MIXED USE BUILDING

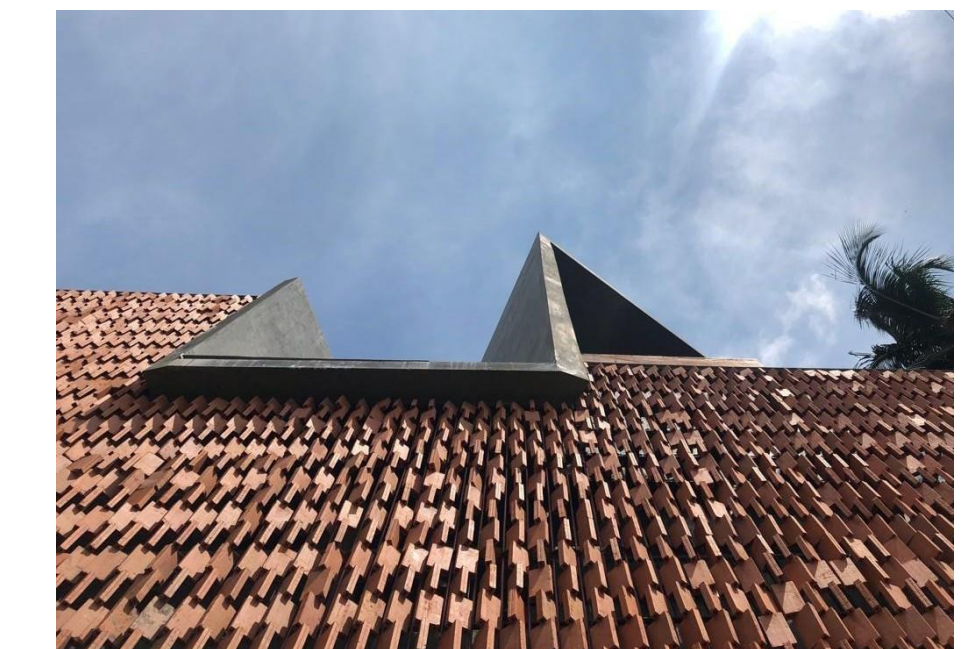
- A South facing mixed use (commercial -residential) building. Abutting a busy road lined by temples and commercial establishments. Since the site is south facing a performative facade is being worked out with wpc tiles so as to maintain thermal comfort at particular time of the day , which is worked out using various tools like climate Consultant , Andrew Marsh etc
- The project has been worked out to achieve a adequate ratio between the semi open and closed spaces by introducing terraces at every level facilitating daylight and abundant ventilation inspite of the context being admist settlements In order to optimise the use of concrete the mud hands team has worked out to introduce various alternative techniques like filler block slabs and use of thermocol concrete etc ..too adding in more sustainable value to the building

PURPOSE OF THE VISIT :

- TO UNDERSTAND THE SCALE
- TO UNDERSTAND PLAY OF LEVELS
- AND TO UNDERSTAND THE ROLE OF CONTRACTOR
- AND HOW DESIGN CHANGES ACCORDING TO PEOPLE



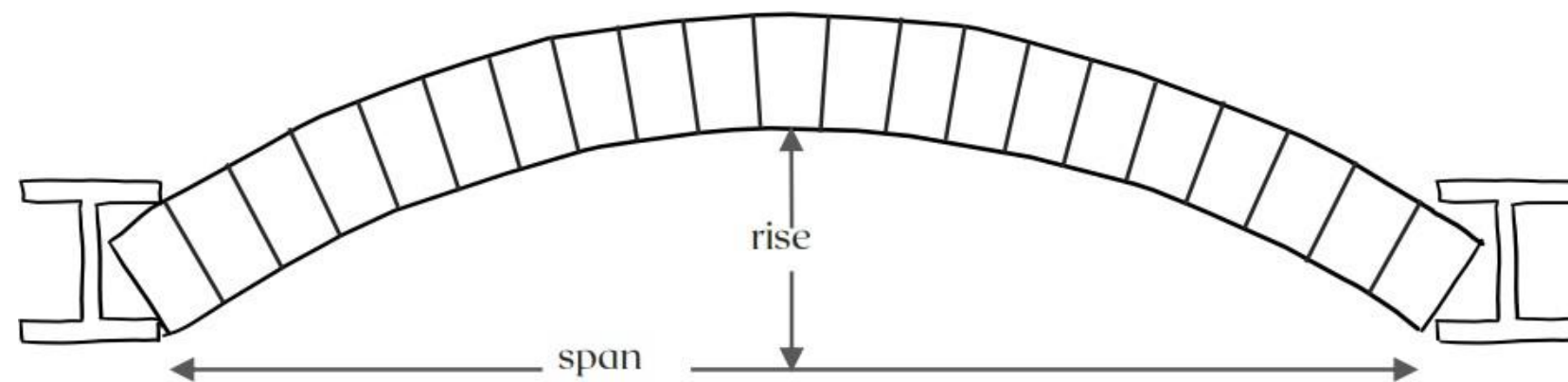
FILLER SLAB IN BASEMENT



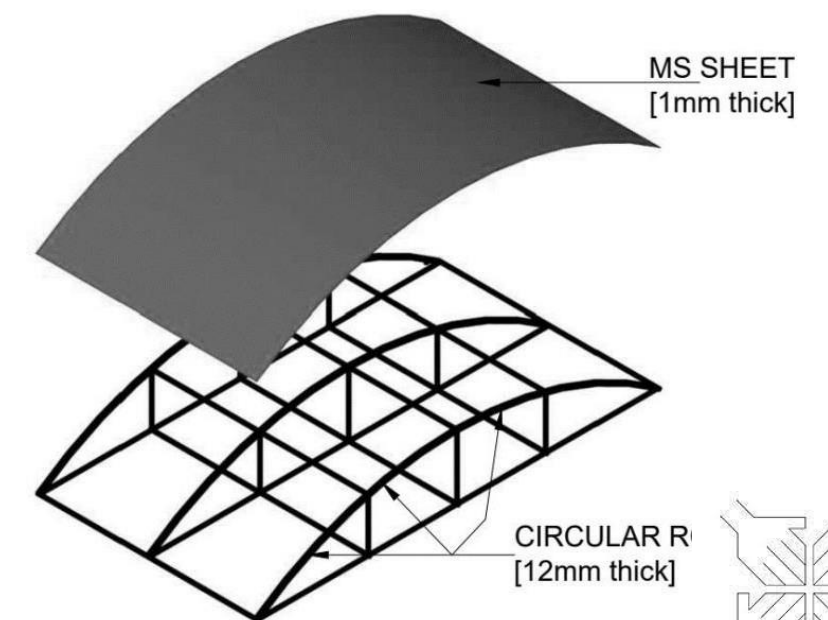
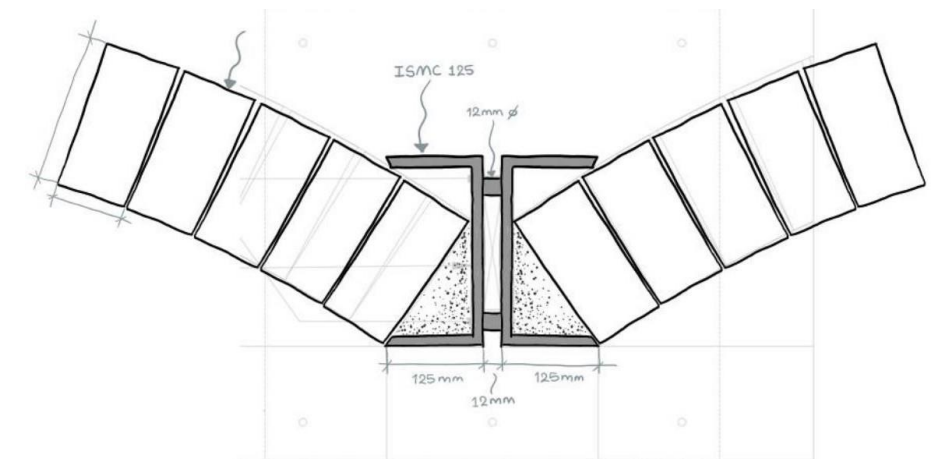
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JACKARCH

Jack Arch Roof: Jack arch roof is a construction method where beams are used at intervals between which hollow terra cotta blocks form small elongated multiple vaults. Above them concrete fill is laid providing a level surface upon which the flooring finish can be done, if there is another level in the structure. Otherwise, the top of the building can be waterproofed and any relevant terrace surface material such as china mosaic tiling used for the finished roof



$$\text{Rise} = \frac{\text{span}}{6}$$



STAGES OF CONSTRUCTION



FABRICATION OF FORM WORK



ISM 125 FOR JACK ARCH



Step 1: Keep the formwork in place on the L- angle with the wedge



Step 2: Arrange the bricks from one side-
staggering



Step 3: Release the formwork by removing the
wedge
Step 4: Slide the formwork slowly on the L
angle



Step 5: Keeping the overlap, lock the
formwork in place with the wedge
Step 6: continue to arrange the bricks in the
form of a vault



ALTERNATIVE BUILDING TECHNIQUES



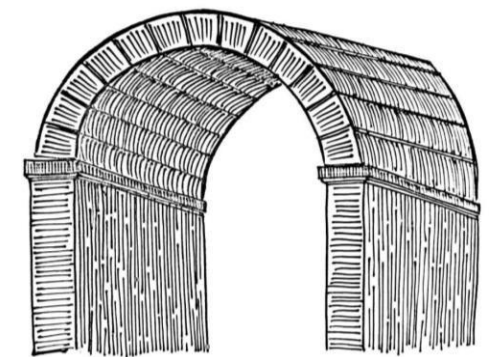
Funicular roof: A change from the grey roofs of concrete, the red brick flat funicular roof is an alternative roofing method. The flat funicular roof works on the tight interlocking of the bricks in a particular ring. Many such concentric rings form the roof. A levelling screed concrete may be used above the brick surface to achieve an even floor surface. One can lay the bricks over a flat formwork as with conventional RCC roofs. The bricks are laid at an angle in concentric circles starting from the outer most layer and moving inwards. Cement mortar between the bricks can be replaced with small stones as well. The funicular roof can be employed in grids up to 3m X 3m. Larger roofs may have to be sub-divided into smaller square sections to roof them using this method



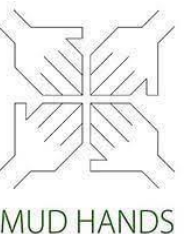
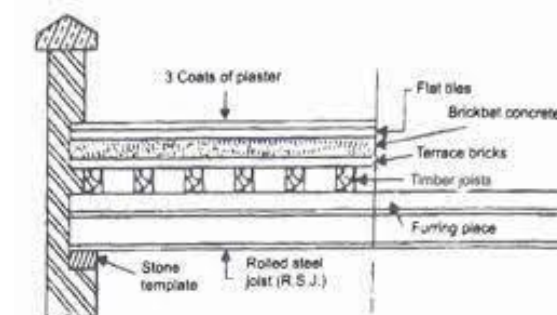
Filler slab: A part of concrete on the bottom of the slab is replaced by a filler material. The basic principle is- the concrete in the bottom half of RCC slab is structurally not required as concrete acts as the compression material which is required in the top half portion of the slab. This portion of concrete is replaced by a low cost, light weight, filler material like mangalore tiles, clay pots, etc. Hence, it is cost effective and reduces the dead load of the slab.



Vaulted roof: When an arch is extruded, a vault is formed. The vault being in compression, is induced by an outward force which can be countered by ties at intervals. The vault can also be supported by ribs which break the larger vault into smaller manageable parts.



Madras roof: Madras roofing is a traditional roofing found in South India. It involves the use of wood, 'aachikal' (locally available bricks) and lime mortar. Wooden beams are used to cover the span, over this wooden beams are laid at intervals of less than 45cm from each other. The gaps between is filled with bricks on edge with lime mortar. Upon this, aachikal brick is laid on edge across, in diagonal fashion, plastered with lime.



Arches: They are primitive structural systems which functions as horizontal concrete beams when compared with concrete framed structures. There are varied types of arches made of bricks or stones with high compressive strengths. Arches can further be explored and exported to different types of roof forms for example jack arch, vaults.

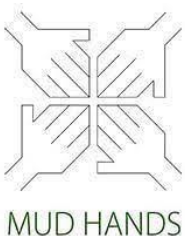
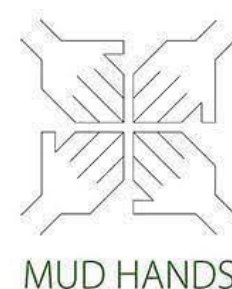
Stone masonry: Stone masonry is a type of building masonry construction that uses stones and mortar. This construction technique is used for building foundations, floors, retaining walls, arches, walls and columns. The stones used for masonry construction are natural rocks. These natural rocks can be cut and dressed into proper shape in order to use it in masonry construction or used without cutting

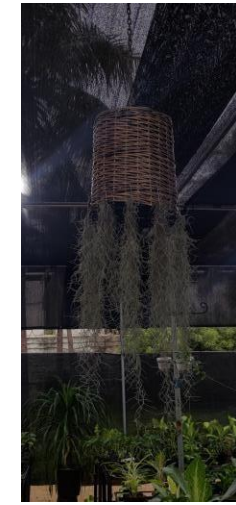


LEARNING



WORKSHOP PICTURES





EXPLORING:
WHEN YOU EXPLORE BY YOURSELF YOU'LL GET TO
KNOW THINGS BETTER AND YOU'RE LUCKY WHEN
YOUR PRINCIPLE ARCHITECT LET YOU EXPLORE
AND MAKE YOU TO EXECUTE THE WORK

