



F. No. J-11011/5/2006-NREGA (Part-III)
Government of India
Ministry of Rural Development
Department of Rural Development (Mahatma Gandhi NREGA Division)

Krishi Bhawan, New Delhi

Dated: 10 June, 2016.

To: The Spl CS /Prl Secretary/ Secretary (in charge of MGNREGA)

Government of *Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Karnataka, Kerala, Manipur, Odisha,*

Rajasthan, Sikkim, Tamil Nadu, Uttarakhand, West Bengal, Goa, Arun, MP, Mizoram, Meghalaya, Nagaland, Telangana
Subject: Designs, using appropriate technologies for construction of Gram Panchayat and Anganwadi buildings under MGNREGS.

Sir/Madam,

In pursuance of the Para 13 (a) of Schedule-1. MGNREGA, that, "For all works involving construction, cost effective, labour intensive technologies and usage of local materials shall be employed as far as possible" one National Workshop, five Regional Workshop and 15-day "Awareness Cum Demonstration Workshop for Masons/ Artisans" were convened by the Ministry of Rural Development. In addition to these, 260 members of State Technical Resource Teams from all over the States/ UTs have been trained on 'SAMARTHYA' Technical Training Manual (MGNREGS) including use of appropriate technologies in construction of MGNREGA buildings.

2. To carry forward the learning in the field, Ministry of Rural Development and Ministry of Panchayati Raj, organized a Workshop cum Design-Shop at NIRD&PR, Hyderabad from 2nd to 5th April, 2016, to prepare State specific designs using appropriate technologies for construction of Gram Panchayat and Anganwadi buildings. In this workshop 11 States/ UTs, where most of GPs are without buildings, were invited.

3. In this Workshop cum Design-Shop, representatives from States were exposed to different labour intensive, cost effective, eco-friendly and usage of local material appropriate technologies being used successfully, by the renowned resource persons in different parts of the country. After getting exposed and in consultation with resource persons (**list enclosed**) State representative Engineers prepared designs & estimates for construction of Gram Panchayat and Anganwadi buildings under MGNREGS, using appropriate technologies, suitable to the their State (**copy of design sheets enclosed**).

4. State representatives were also convinced for production of fly ash bricks or stabilized soil blocks under MGNREGS, as fly ash is solid waste of thermal plants and production of fly ash bricks and stabilized soil blocks will be eco- friendly also.

5. Copy of the booklet on, "specifications of different appropriate technologies for production of building materials & construction of buildings" to be used is available on the MGNREGA website, under category 'Engineers' and head, "**specification of different appropriate technologies for production of building materials and construction of buildings**" as already communicated to the States/ UTs vide Ministry letter dated 20th January, 2016.

6. It is requested that, the States/ UTs, who did not participate in the workshop can also use these designs, using appropriate technologies for construction of Gram Panchayat and Anganwadi buildings, suitable to their areas.

Yours faithfully

(Aparajita Sarangi)

Joint Secretary, MGNREGS

Enclosure: As above (list of resource persons and 7 design each of GP & AWC buildings)

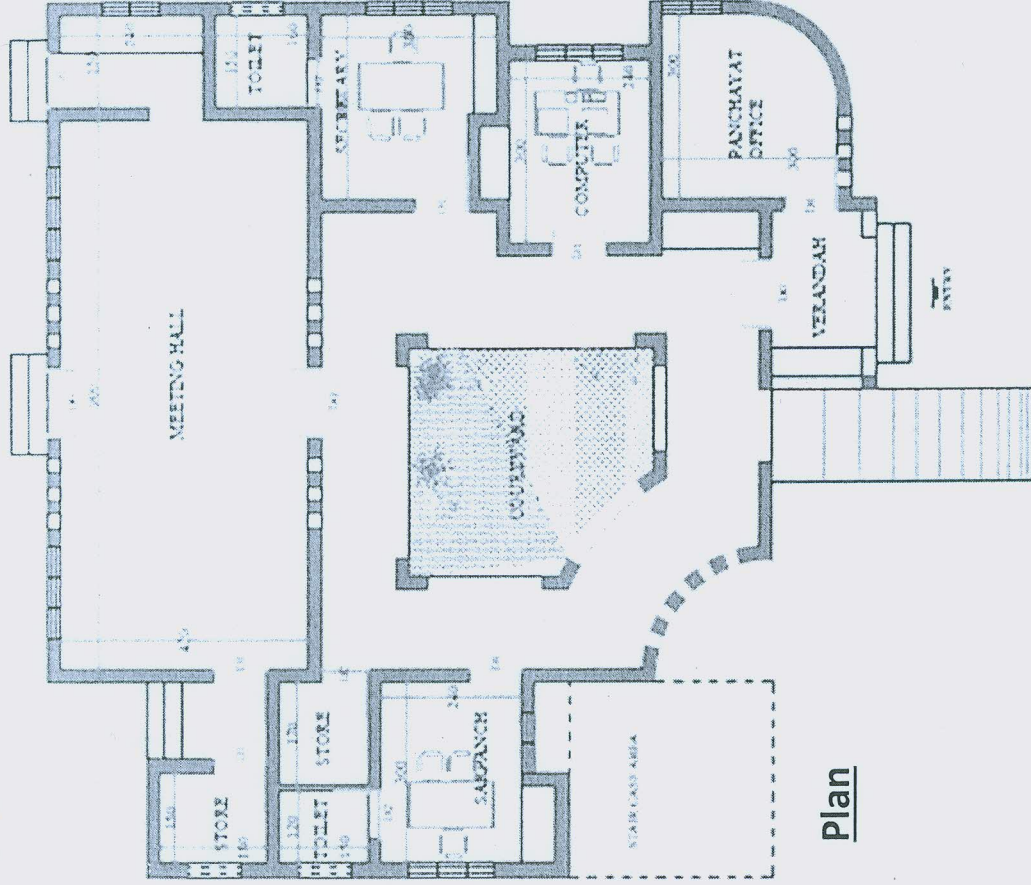
10/6/16

**LIST OF RESOURCE PERSONS PARTICIPATED IN THE WORKSHOP CUM
DESIGN SHOP HELD AT NIRD & PR, HYDERABAD FROM 2ND TO 5TH APRIL,
2016:**

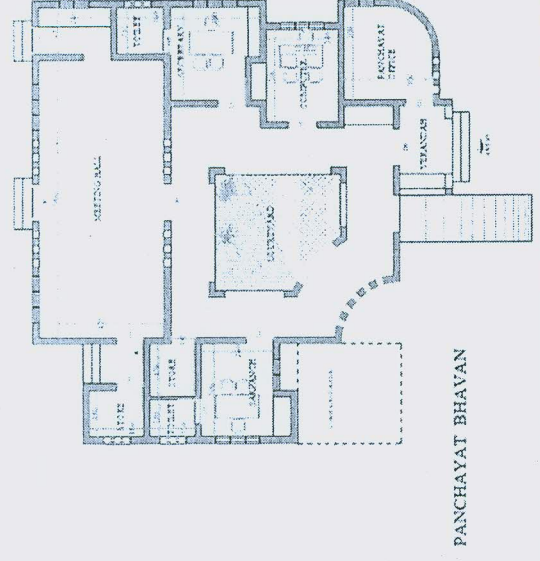
Sl. No.	Name & Designation	Contact Details
1	Prof. Subhash Basu Secretary , Gram Vidhya, Mangalore	8762368048, subhasbasu1960@gmail.com
2	Prof. K.S. Jagdish President, Gram Vidhya, Bangalore	09845553365, ksjagadish@gmail.com
3	Ms Zeenat Niazi Vice President, Development Alternatives Group, New Delhi	09810947009, zniazi@devalt.org
4	Mr. Soham Pandya, Engineer, CSV Wardha	09890434003, soham.ced@gmail.com
5	Mr Vaibhav Kale C.E.O., Wonder Grass Initiative Pvt. Ltd., Nagpur	09011019001, vaibhav@wondergrass.in , contact@wondergrass.in
6	Padmasri G Shankar Habitat Technology Group, Trivendrum	09847061414
7	Shri Madhusudhan Habitat Technology Group, Trivendrum	09447701110
8	Shri R D Padma Kumar Ex-GM, COSTFORD, Trivendrum	09446551260
9	Shri Amit Khurana AIDE, Jalandhar, Punjab	09814160848
10	Ms Mythily Executive Engineer, Telangana	09866101644
11	Shri Durga Prasad Executive Engineer, Telangana	07095559900, durgaprasadkolusu@gmail.com
12	Mr. Pravin Engineer, CSV, Wardha	09505232751
13	Ms. Srijani Hazra Consultant, MGNREGS, MoRD	09968562512
14	Shri Pankaj Khanna Independent Consultant – Rural Housing, G-17/12, Ground Floor, Malviya Nagar, New Delhi – 110017	Mob: 09910611264 pkcowzah@gmail.com
15	Shri Vyas Dev Yengkhom Project Associate, 55, Lodhi Estate New Delhi-110003	09899699273 Off:0114653272 vyas.yengkhom@undp.org

LIST OF RESOURCE PERSONS PARTICIPATED IN THE WORKSHOP
 DURING THE 2ND AT NRI & P. HYDERABAD FROM 2ND TO 5TH APRIL
 2010

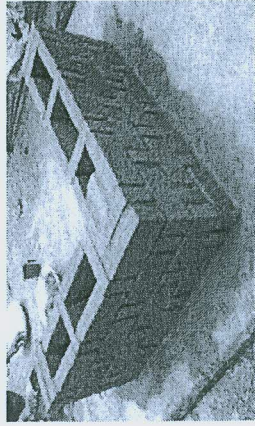
16	Shri Rabi Mukhopadhyay Vice President, FOSET Flat No: B/3, Ironside Apartments, 11/3B Old Ballygunde, 2nd Lane, Kolkata-700019	Mob: 09831785982 rabimukh@gmail.com
17	Shri R Kondala Rao Technical Advisor, Govt. Of Telangana, DNo.8.2.601/p/1, Road No. 10, Banjara Hills, Hyderabad-500034	Mob: 09848883457 Off: 07702988330 kondalrao1937@gmail.com
18	Shri Ranjit Sinha Advisor, Tilothu Mahila Mandal, P.O. Tilothu, Rohtas Dt. Bihar-821 312	Mob: 09430839686 Off: 06184264203 sinha.r47@gmail.com
19	Shri A V Pramod Structural Engineer, MAHIJAA, #64/108, Doresanipalya, Bilekahalli, Bannerghatta road, Bangalore – 560 076	Mob: 9986510969 Ph: 080-26582970 mahijaa13@gmail.com
20	Shri N Ashok Executive Engineer O/o CRD Telangana, Lowertankbund, DWACRA Bhawan, Hyderabad	Mob: 7095500306 egs.telangana@gmail.com



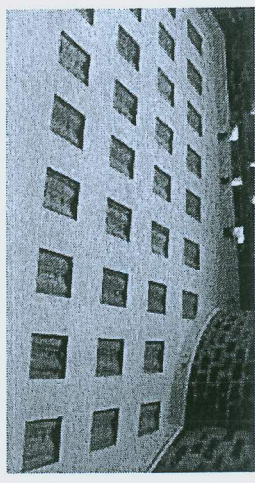
Plan



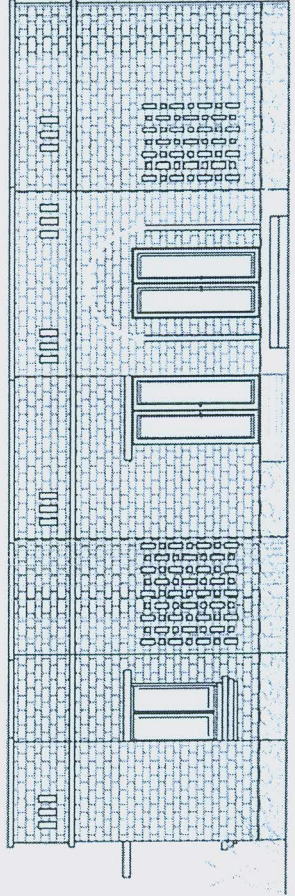
Site plan



Rat-Trap Masonry



Filler slab roof



Front Elevation

Proposed layout for Panchayat Bhawan building

Name of the state: Maharashtra

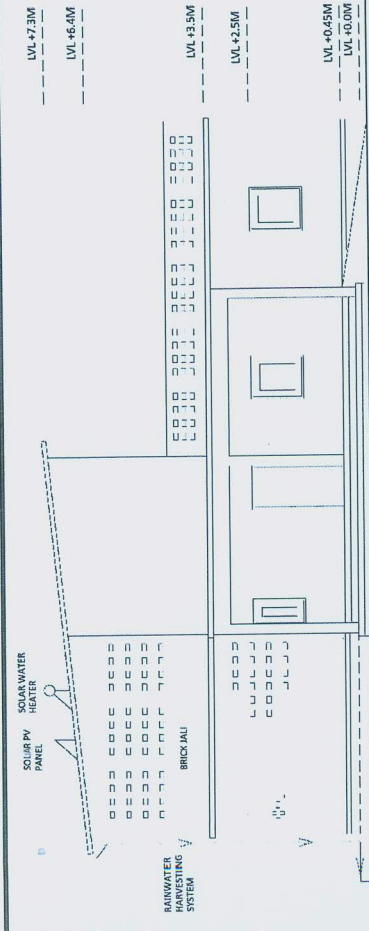
Technology: Rat-Trap bond masonry and Filler Slab roof
 Covered area: 147 SQM (1580SFT)

Team Members:

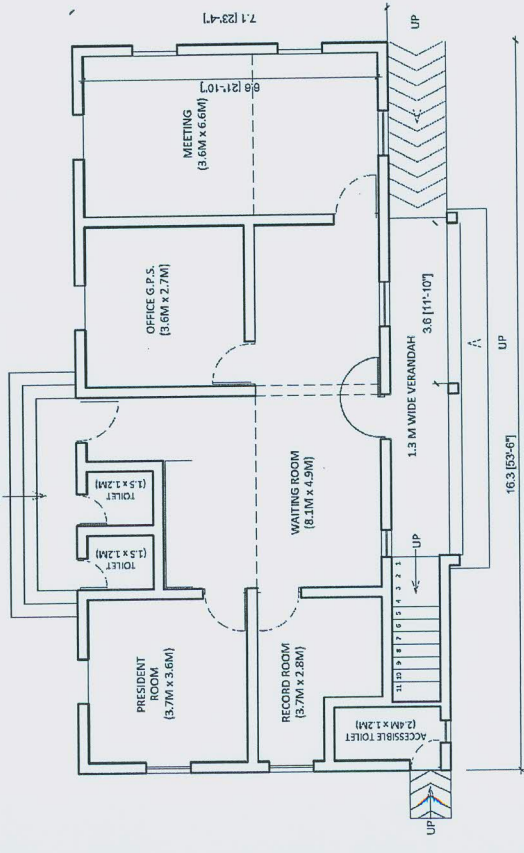
- 1) Shri Sunil Chandrashekhar Rahane, Sub Divisional Engineer Collector Office, Civil Lines, Wardha
- 2) Shri. Sanjay Dadaraoji Ugemuge, Sectional Engineer, Panchayat Samiti, Wardha

SCALE: NTS

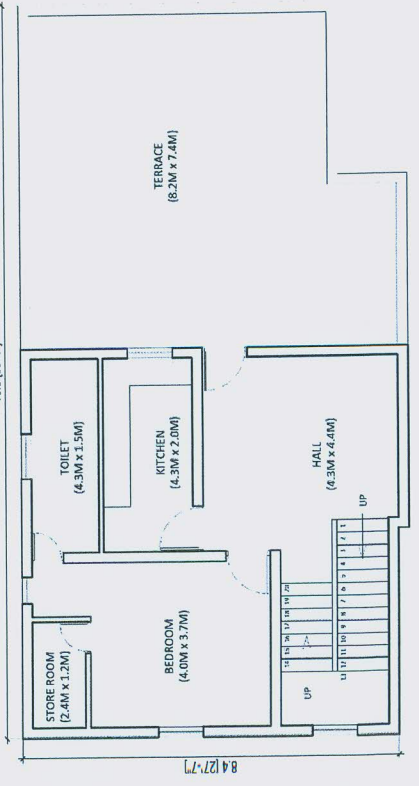




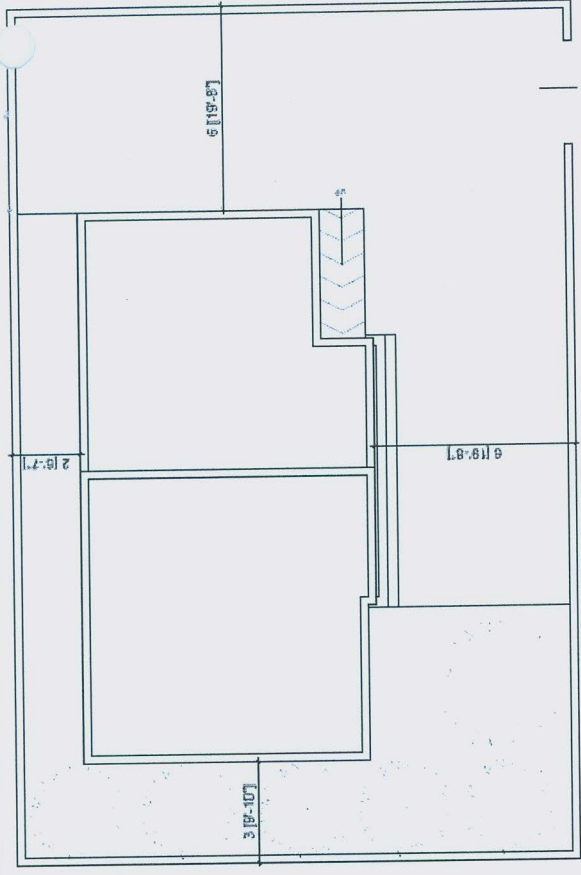
FRONT ELEVATION



GROUND FLOOR PLAN

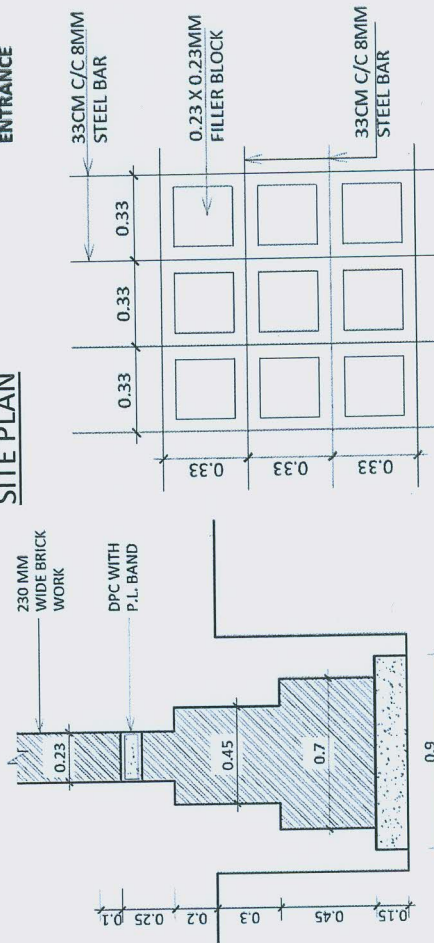


FIRST FLOOR PLAN



SITE PLAN

ENTRANCE



FOUNDATION DETAIL

FILLER SLAB DETAIL

PROPOSED LAYOUT FOR TYPICAL GRAM PANCHAYAT BHAWAN BUILDING

Name of the state: Uttarakhand

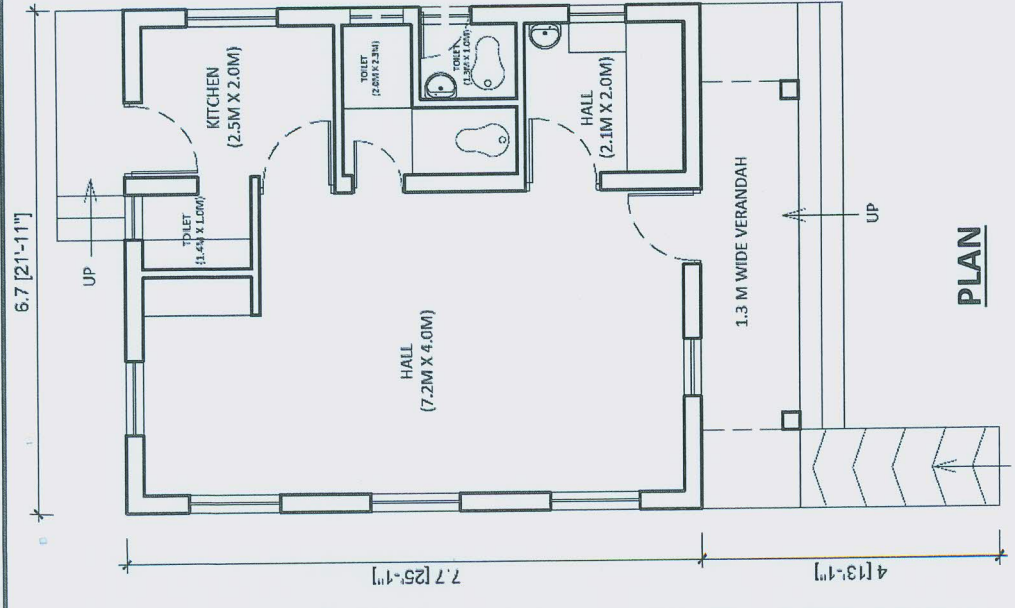
Team Members:

- 1) Shri. B. S. Bhandari, Assistant Engineer, State MGNREGA cell
- 2) Shri Rajendra Bisht, Assistant Engineer, DRDA

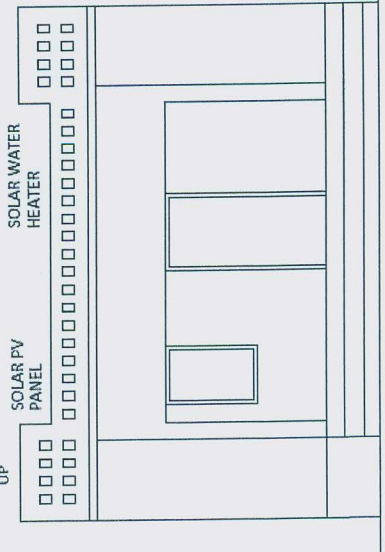
Technology: Rat-trap bond for wall, Filler slab for roof, Exposed brick masonry, CSEB block production under MGNREGA.

Built-up area: 132 SQM (FFL) + 70 SQM (SFL) = 202 SQM (2174 SFT) Scale: NTS

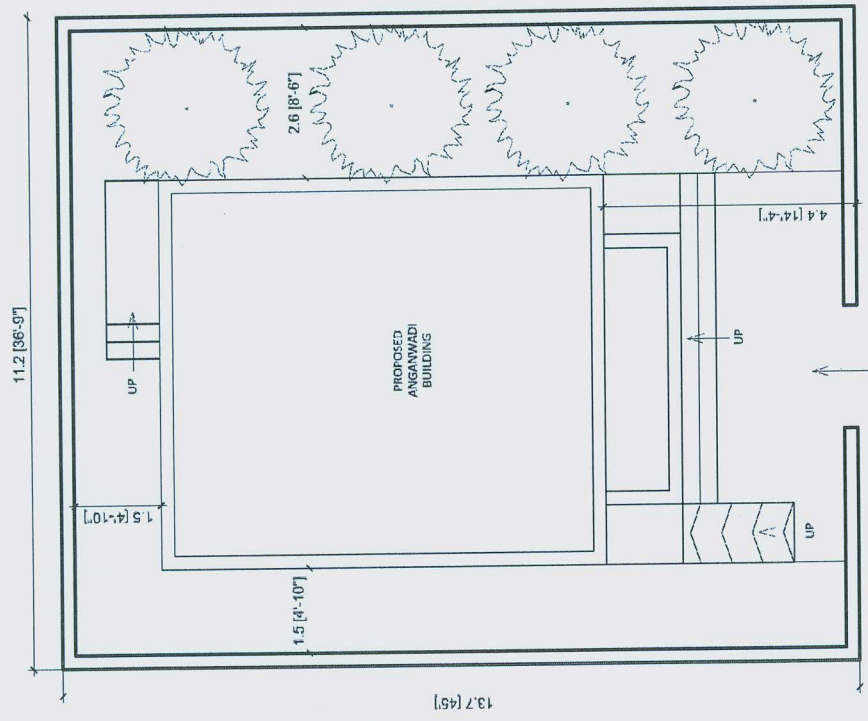




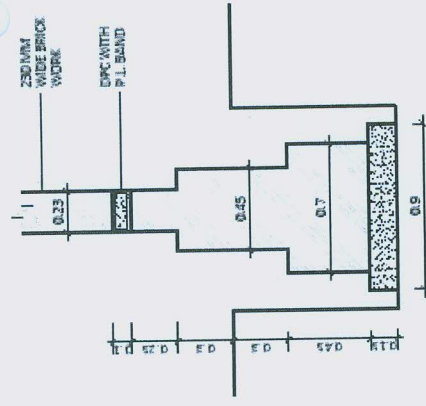
PLAN



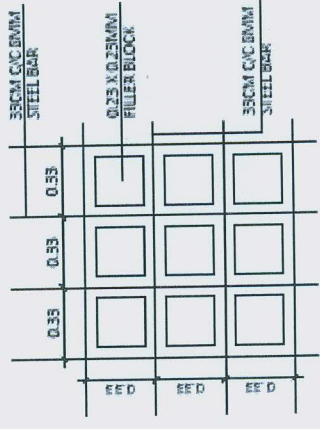
FRONT ELEVATION



**ENTRANCE
SITE PLAN**



STUB FOOTING DETAIL



FILLER SLAB DETAIL

PROPOSED LAYOUT FOR TYPICAL ANGANWADI CENTRE BUILDING

- LVL +3.8M
- LVL +2.8M
- LVL +0.7M
- LVL +0.0M

Name of the state: Uttarakhand
 Team Members:

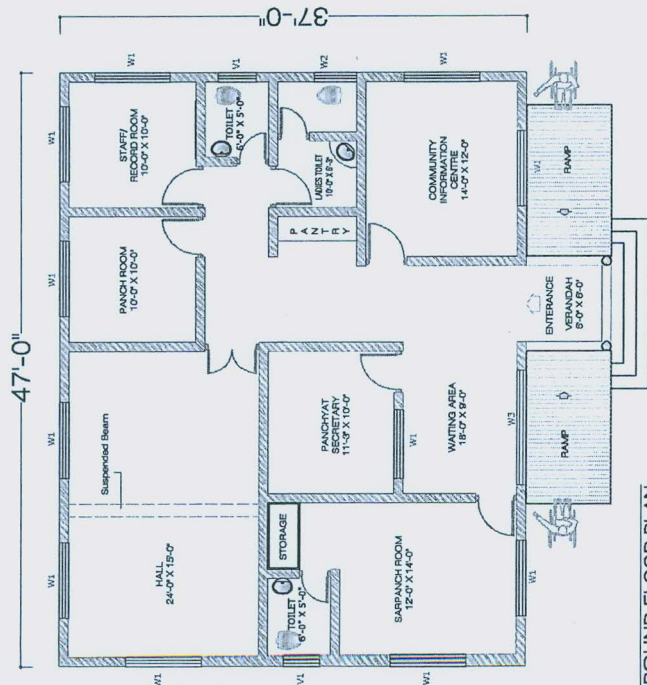
- 1) Shri. B. S. Bhandari, Assistant Engineer, State MGNREGA cell
- 2) Shri Rajendra Bisht, Assistant Engineer, DRDA, Vikas Bhawan,

Technology: Rat-trap bond for wall, Filler slab for roof, Traditional R/R Masonry, CSEB block production under MGNREGA.

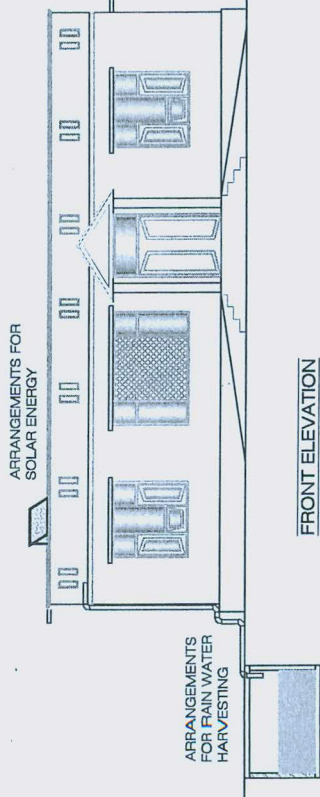
Covered area: 63.65 SQM (685 SFT)

Scale: NTS

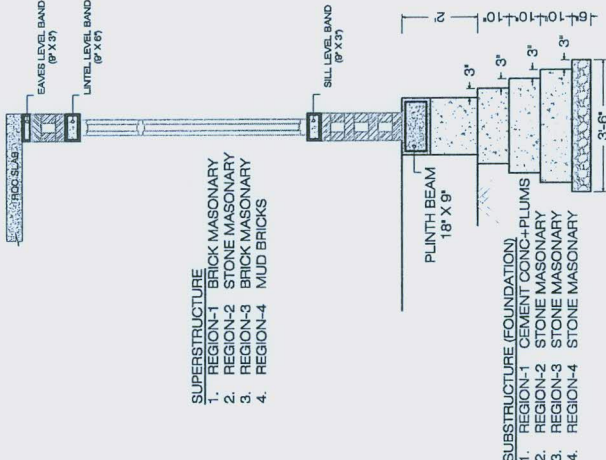




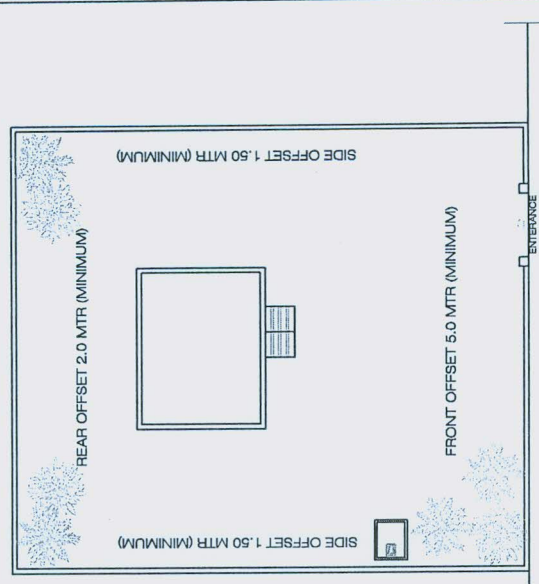
GROUND FLOOR PLAN



FRONT ELEVATION



SECTION OF WALL (FOR REGION-1)



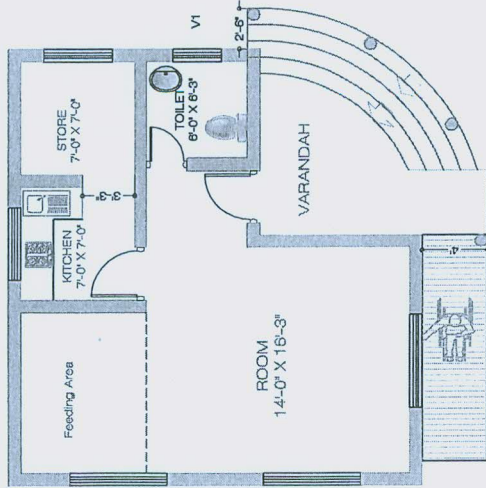
SITE PLAN FOR THE CONSTRUCTION OF PANCHYAT BHAWAN IN JAMMU & KASHMIR

1. RCC SLAB THICKNESS 5", REINFORCEMENT 10 mm Ø @ 6" X 8".
2. INVERTED T-BEAM SIZE 1'-6" X 0'-9", REINFORCEMENT 16 mm Ø (5+4).
3. PLINTH BEAM SIZE 1'-6" X 9" WITH REINFORCEMENT 12mm Ø (4+4) & 8mm RINGS @ 6" C/C
4. SILL / EAVES BAND SIZE 9" X 3", REINFORCEMENT: LONGITUDNAL 10mm Ø @ 2" AND TRANSVERSE 10 mm Ø @ 12" C/C
5. LINTEL BEAM WITH SIZE 9" X 6", REINFORCEMENT: LONGITUDNAL 3+2&8 mm Ø RINGS @6" C/C.
6. PLINTH AREA:
 - A. BRICK MASONRY S/S = 1789.62 SFT , COST PER SFT 1504.00 /SFT
 - B. STONE MASONRY S/S = 2005.7 SFT , COST PER SFT 1536.00 / SFT

- USEAGE OF APPROPRIATE TECHNOLOGY
- RAT TRAP MASONRY
 - FILLER SLAB
 - MUD BRICKS
 - CSEB
 - RANDOM RUBBLE MASONARY

PROJECT:
PANCHYAT BHAWAN
 UNDER MGNREGA,
 STATE OF JAMMU & KASHMIR

PROJECT:
PANCHYAT BHAWAN.
 STATE OF JAMMU & KASHMIR
 STATE RESOURCE TEAM
 1. PARVEZ MALIK
 2. DALIP TIKOO
 3. GAUSER AMIN
 4. ABDUL QAYOOM CHALKOO
 5. SUNIL DUTT RAZDAN
 6. DEEP RAJNA
 7. RAJ KUMAR PANDITA
 8. VIRENDER SINGH

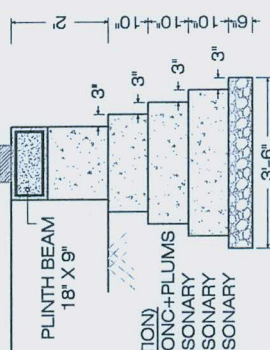


GROUND FLOOR PLAN

- SUPERSTRUCTURE**
1. REGION-1 BRICK MASONRY
 2. REGION-2 STONE MASONRY
 3. REGION-3 BRICK MASONRY
 4. REGION-4 MUD BRICKS

SUBSTRUCTURE (FOUNDATION)

1. REGION-1 CEMENT CONC+PLUMS
2. REGION-2 STONE MASONRY
3. REGION-3 STONE MASONRY
4. REGION-4 STONE MASONRY



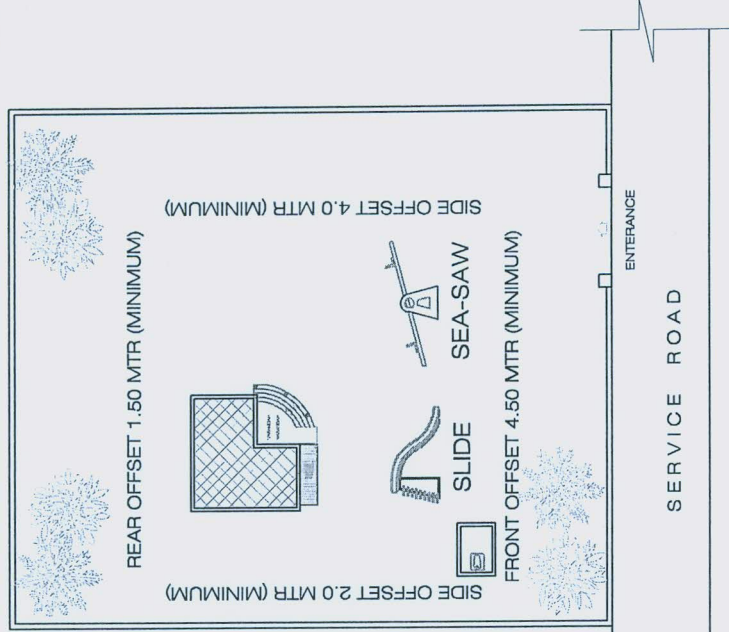
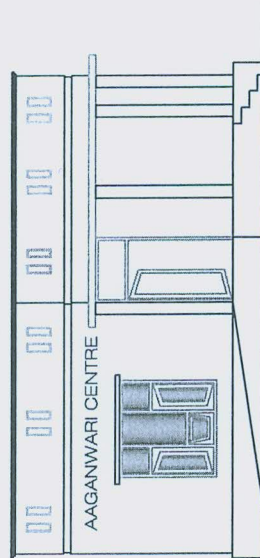
SECTION OF WALL (FOR REGION-1)

1. RCC SLAB THICKNESS 5", REINFORCEMENT 10 mm ϕ @ 6" X 8".
2. INVERTED T-BEAM SIZE 1'-6" X 0'-9", REINFORCEMENT 16 mm ϕ (5+4).
3. SUSPENDED BEAM SIZE 1'-6" X 9" WITH REINFORCEMENT 16mm ϕ 4 NOS BOTTOM & 12mm ϕ (3+2) NOS TOP, 8mm RINGS @ 6" C/C
4. VERANDAH BEAM SIZE 9" X 9", REINFORCEMENT: LONGITUDINAL 12mm ϕ 5 NOS & 8 MM ϕ RINGS @ 6" C/C
5. PLINTH BEAM SIZE 1'-6" X 9" REINFORCEMENT: LONGITUDINAL 12mm ϕ (4+4) NOS & 8 MM ϕ RINGS @ 6" C/C
6. PROJECT COST: 8.72 LACS

PLINTH AREA = 717.10 SFT , COST PER SFT 1205.00 /SFT
 USAGE OF APPROPRIATE TECHNOLOGY

- RAT TRAP MASONRY
- FILLER SLAB
- MUD BRICKS
- CSEB
- RANDOM RUBBLE MASONRY

FRONT ELEVATION



**SITE PLAN FOR THE CONSTRUCTION OF
 AAGANWARI CENTRE IN JAMMU & KASHMIR**

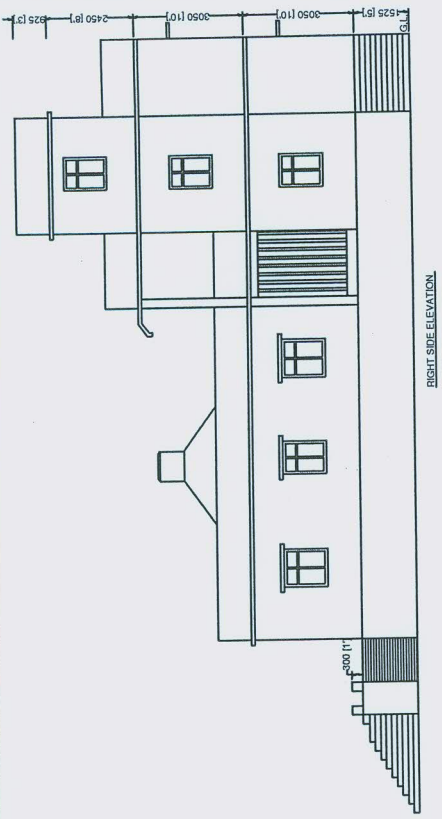
PROJECT:

AAGANWARI CENTRE.

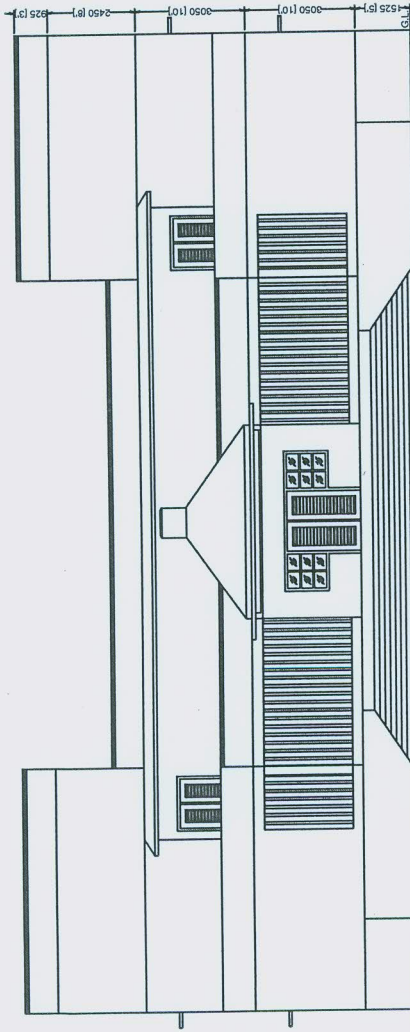
STATE OF JAMMU & KASHMIR

STATE RESOURCE TEAM

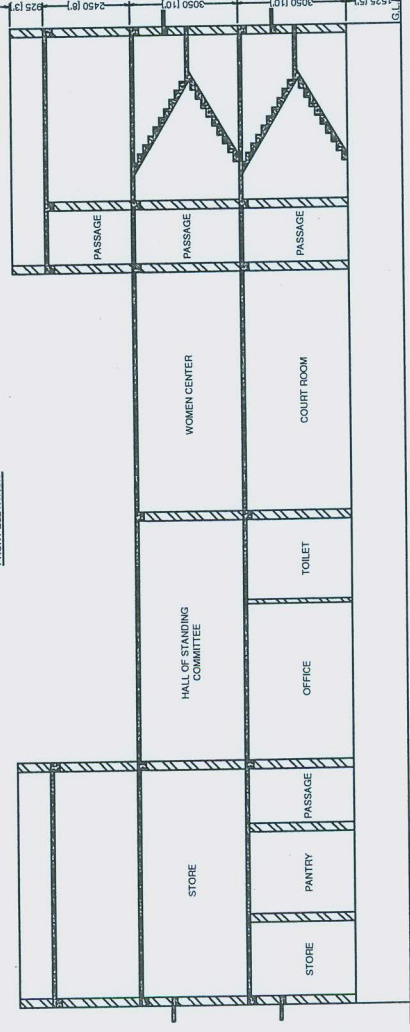
1. PARVEZ MALIK
2. DALIP TIKOO
3. GAUSER AMIN
4. ABDUL GAYOOM CHALKOO
5. SUNIL DUTT RAZDAN
6. DEEP RAJNA
7. RAJ KUMAR PANDITA
8. VIRENDER SINGH



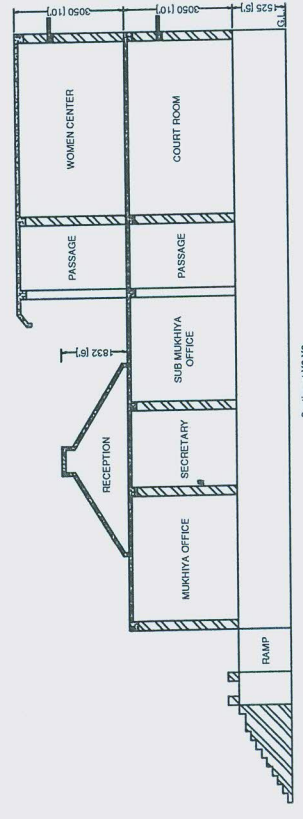
RIGHT SIDE ELEVATION.



FRONT ELEVATION.



Section at Y2-Y2



Section at Y3-Y3

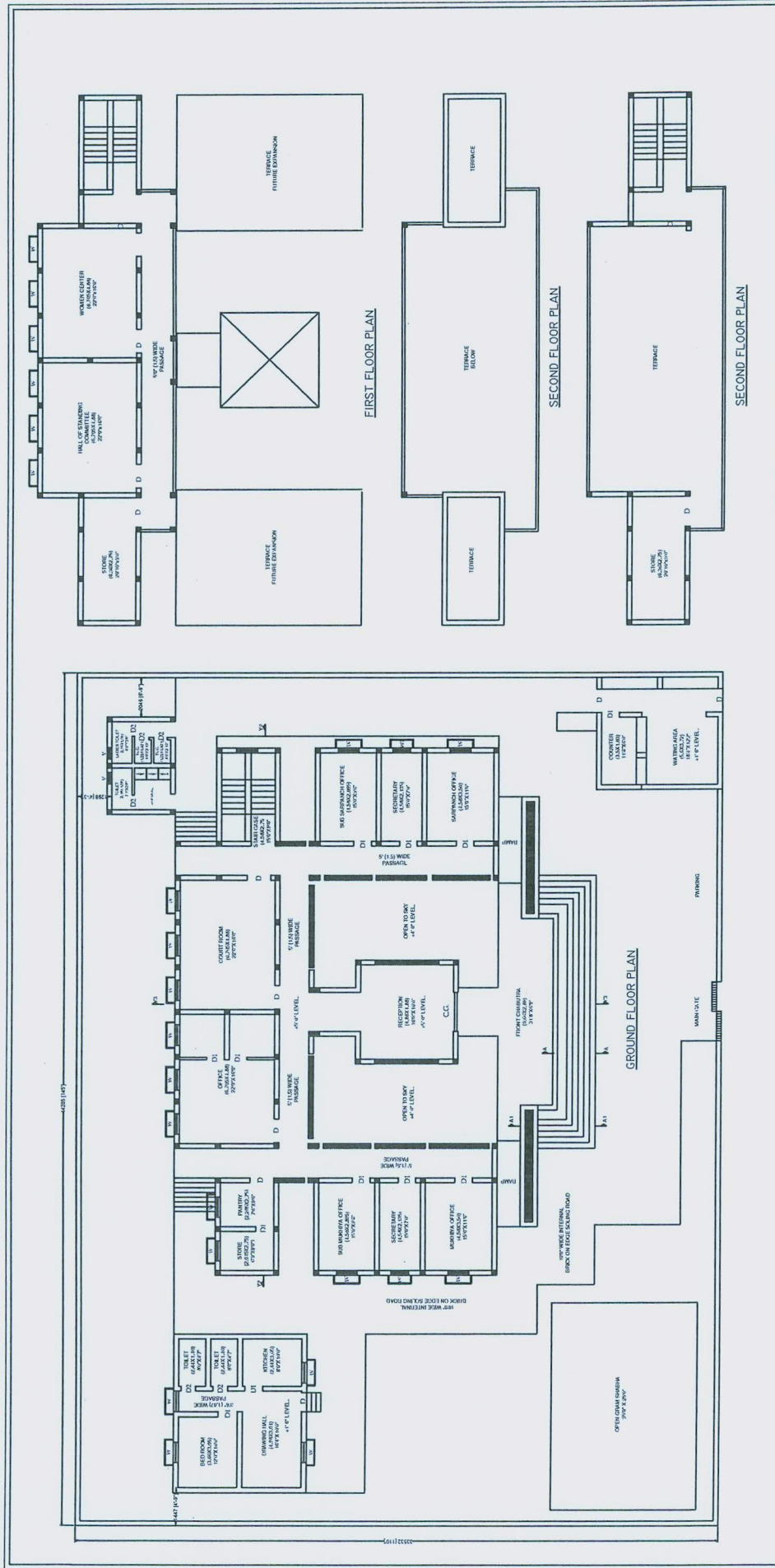
PROJECT :- PROPOSED CONSTRUCTION OF PANCHAYAT SARKAR BHAWAN IN BIHAR.

SHEET TITLE :- ELEVATION & SECTION.

DESIGNED BY:-

DRAWN BY:-

SHEET NO:- A-2



PROJECT :- PROPOSED CONSTRUCTION OF PANCHAYAT SARKAR BAHWAN IN BIHAR.

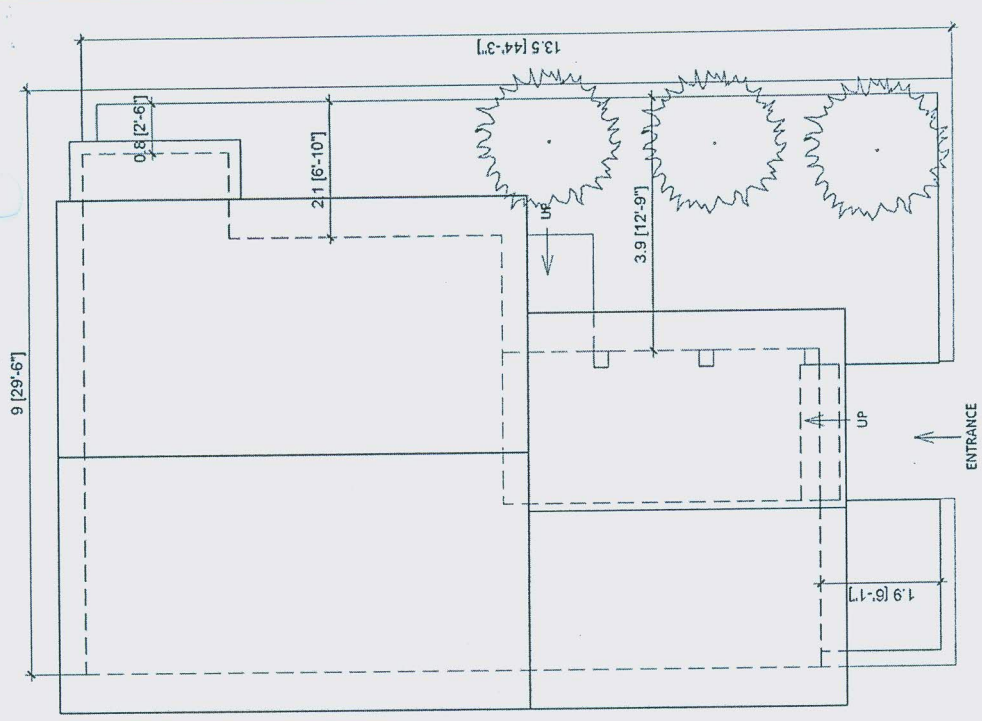
SHEET TITLE :- GROUND FLOOR PLAN , FIRST FLOOR PLAN , SECOND FLOOR PLAN , TERRACE & MUMTY (MODEL PLAN)

DESIGNED BY:-

DRAWN BY:-

SHEET NO:- A-1

S. NO	TYPE	SIZE	LINT. LVL.	CILL. LVL.	DECRIPTRION
1.	D	4'0"X7'0"	7'-0"	0'-0"	STEEL DOOR
2.	D1	3'-0"X7'-0"	7'-0"	0'-0"	STEEL DOOR
3.	D2	2'-6"X7'-0"	7'-0"	0'-0"	STEEL DOOR
4.	W	3'-6"X4'-0"	7'-0"	3'-0"	STEEL WINDOW.
5.	W1	3'-0"X4'-0"	7'-0"	3'-0"	STEEL WINDOW.
6.	V	2'-0"X2'-0"	7'-0"	5'-0"	STEEL WINDOW.
7.	C.G	6'-7"X6'-0"	7'-0"	0'-0"	STEEL GATE



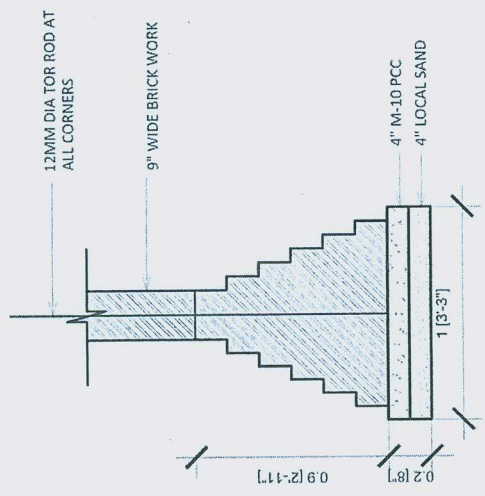
SITE PLAN

PROPOSED LAYOUT FOR ANGANWADI CENTRE BUILDING BIHAR.

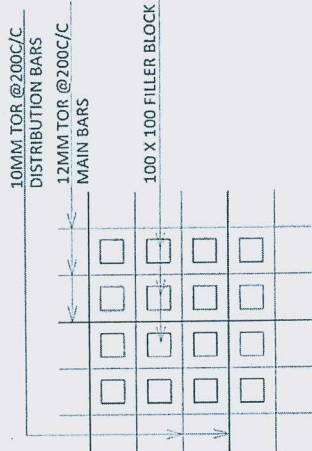
Name of the state: Bihar
Technology: Rat-trap bond masonry, Filler slab roof
Covered area: 65 SQM (700 SFT)
Team Members:
 1) Shri. Vijay Kumar, E.E., R.D.D.,
 2) Shri. Rudra Kumar, E.E., R.D.D.,
 3) Shri. Raj Kumar Paswan, P.R. Bihar



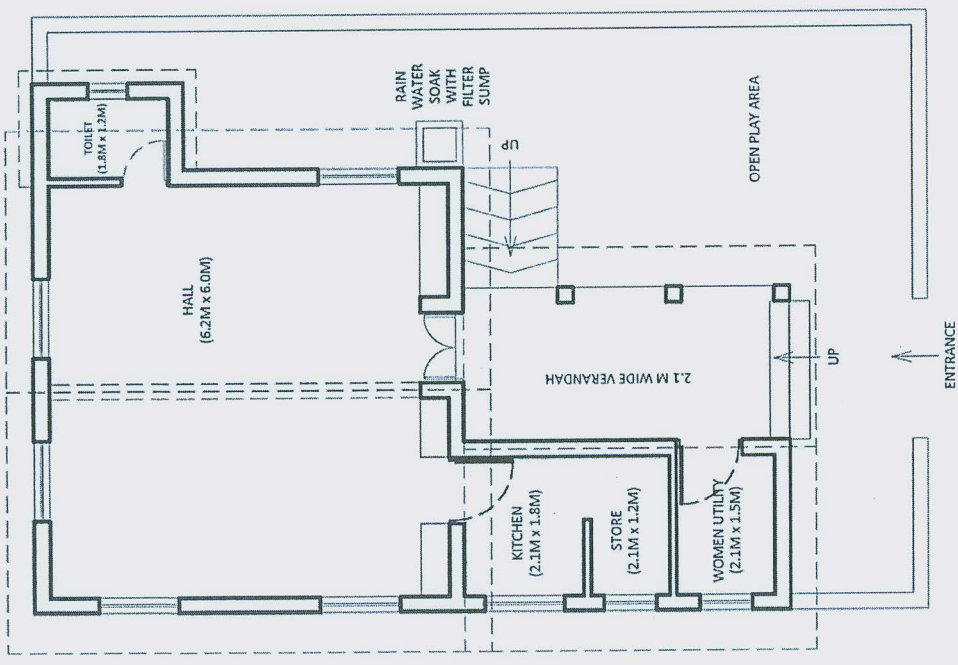
Scale: NTS



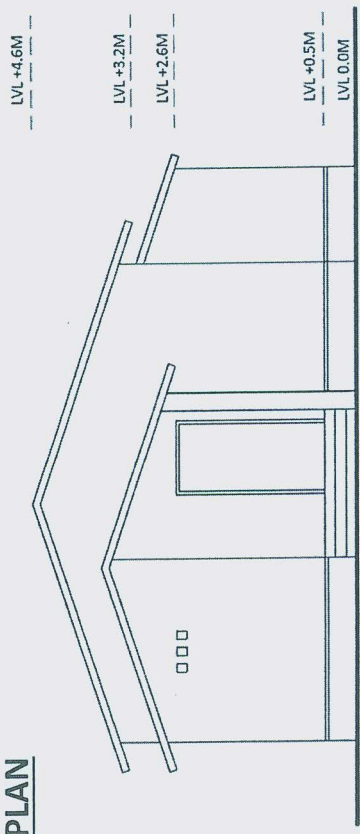
FOUNDATION DETAIL



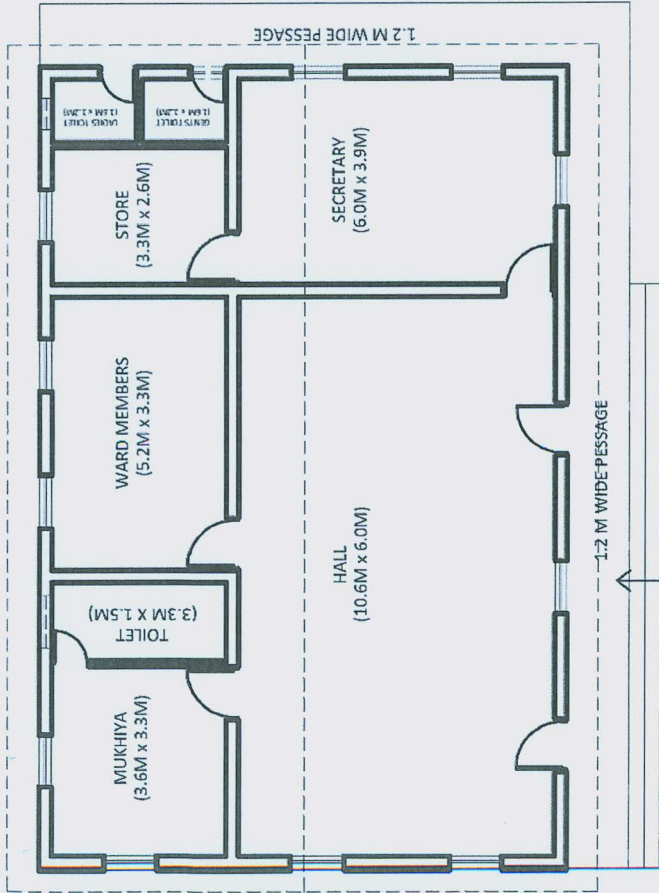
FILLER SLAB DETAIL



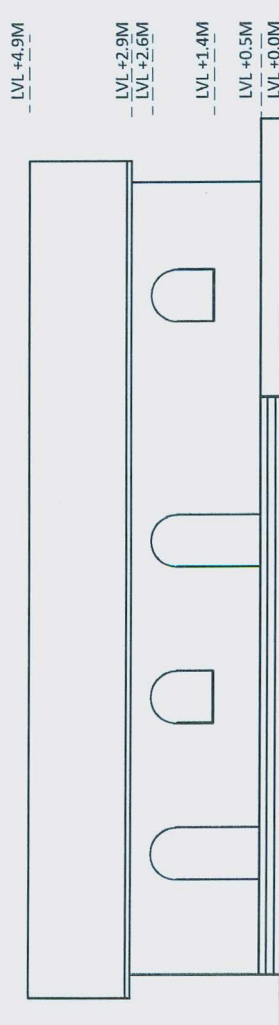
PLAN



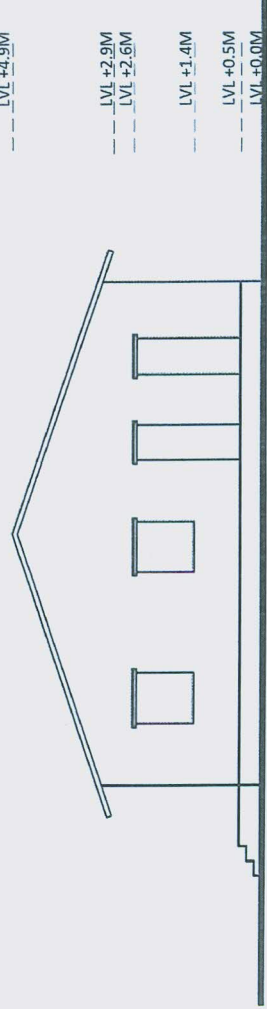
FRONT ELEVATION



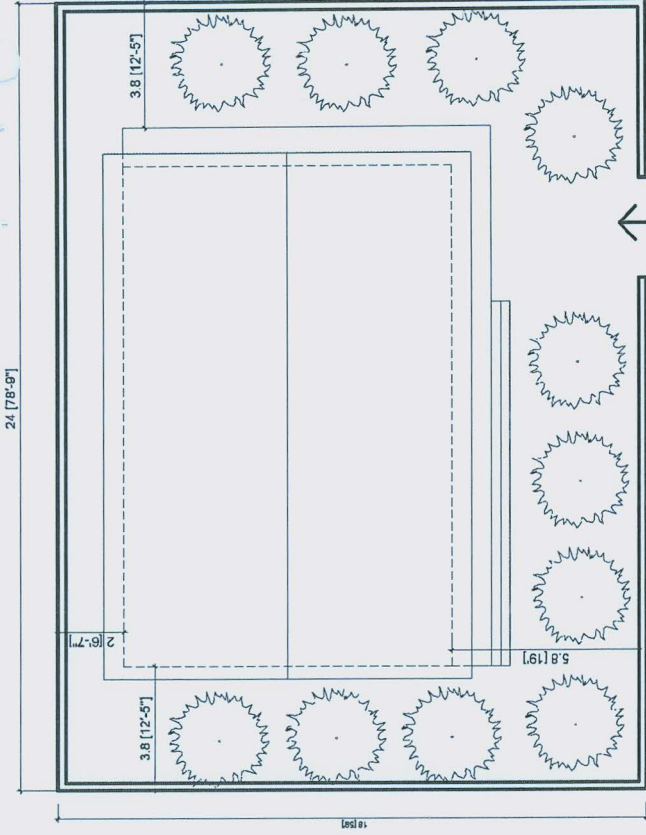
PLAN



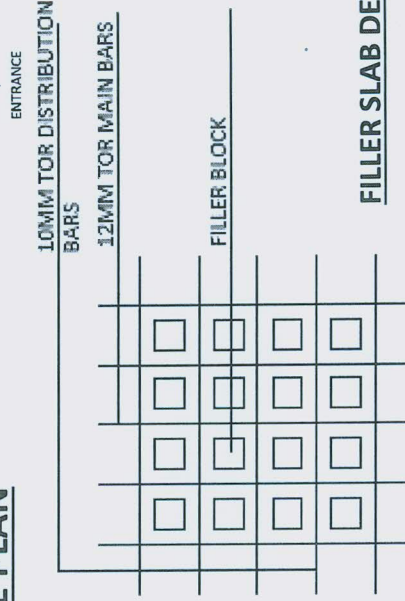
FRONT ELEVATION



NORTH SIDE ELEVATION



SITE PLAN



FILLER SLAB DETAIL

PROPOSED LAYOUT FOR TYPICAL GRAM PANCHAYAT BUILDING

Name of the state: Jharkhand

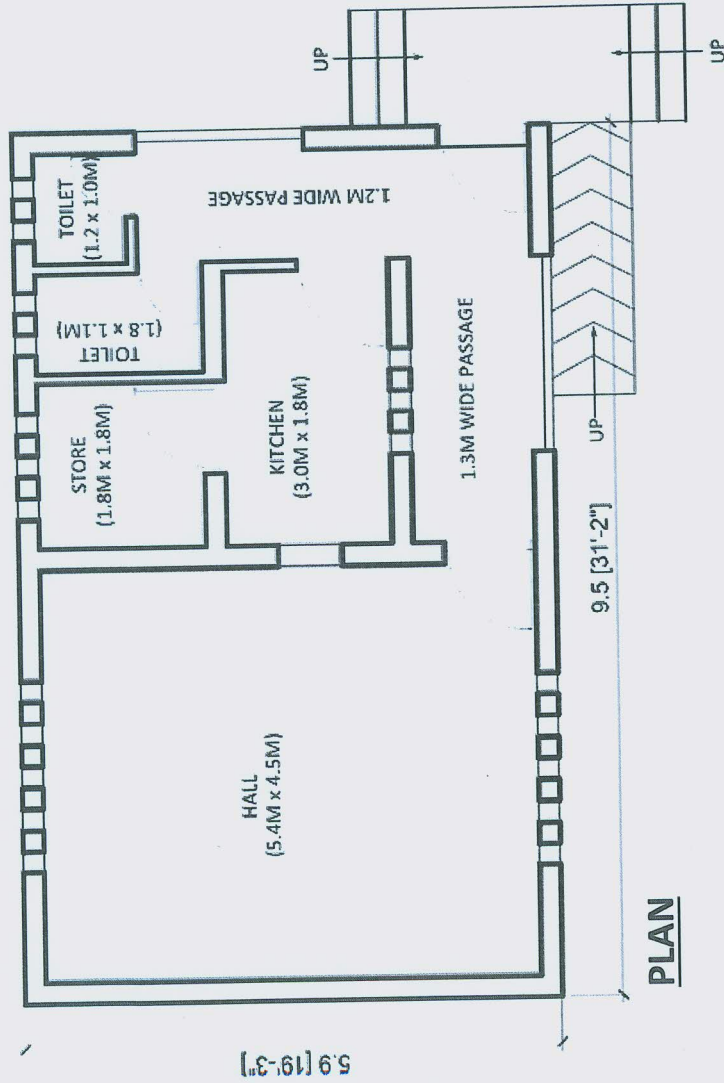
Team Members:

- 1) Shri. Awdesh Sharma
- 2) Shri Santosh Kumar Singh
- 3) Shri Rajiv Kumar Mahto

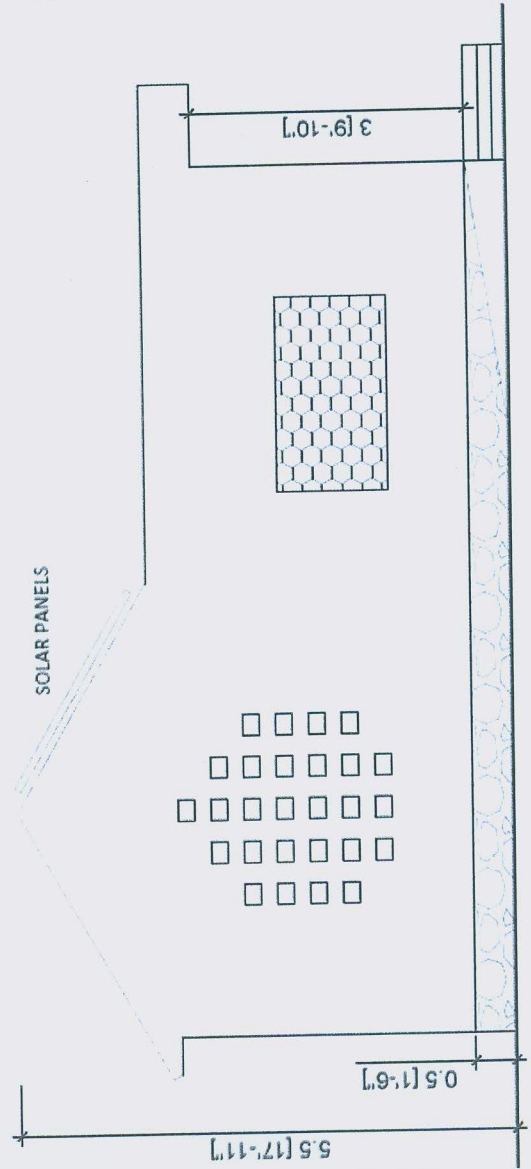
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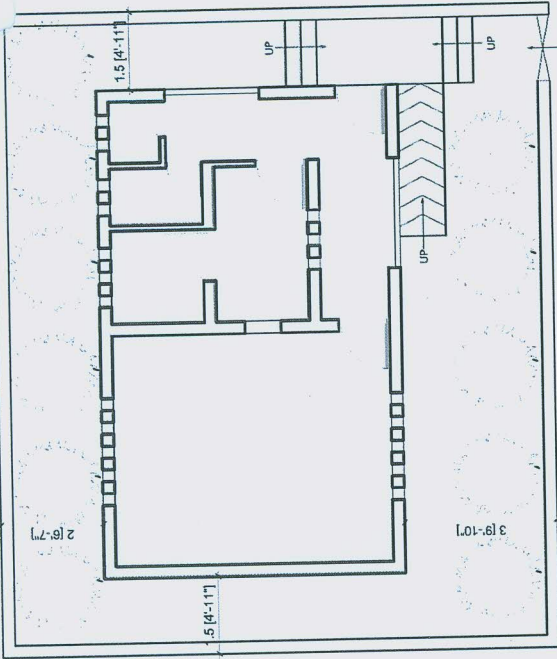
Technology: Rat-trap bond for wall, Filler slab for roof
Covered area: 152 SQM (1611 SFT)



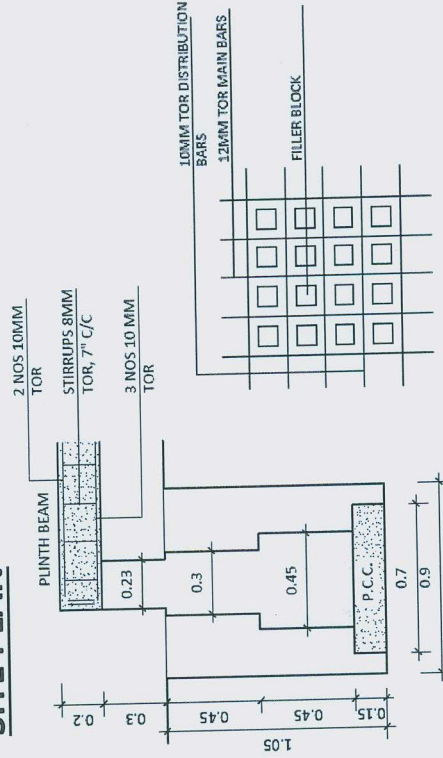
PLAN



NORTH SIDE ELEVATION



SITE PLAN



STUB FOOTING DETAIL

FILLER SLAB DETAIL

PROPOSED LAYOUT FOR ANGANWADI CENTRE BUILDING

Name of the state: Jharkhand

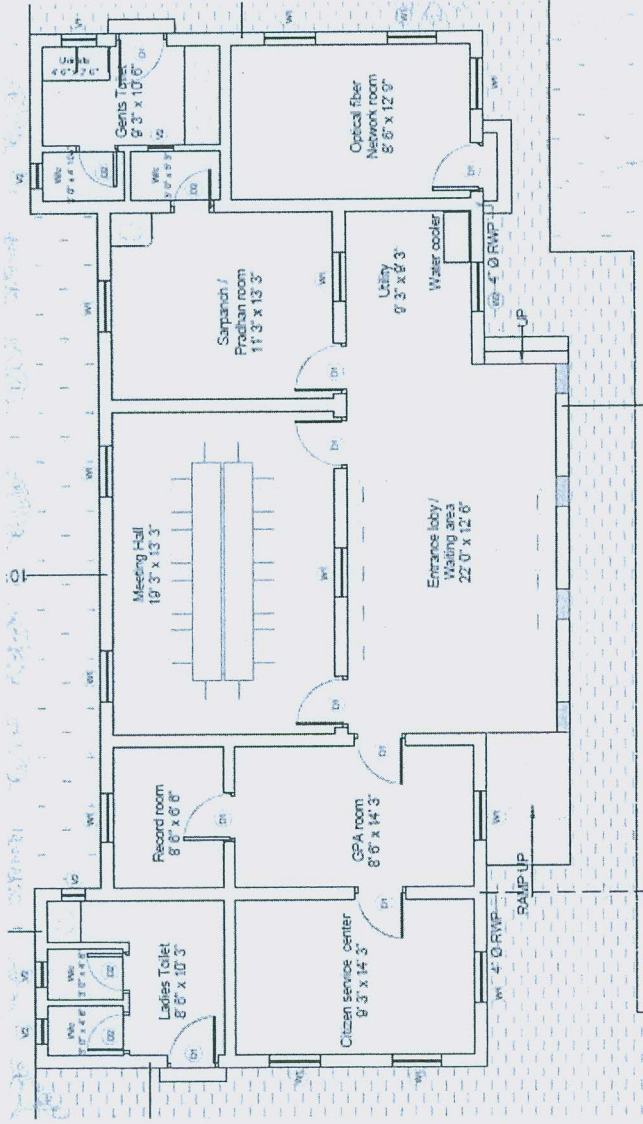
Team Members:

- 1) Shri. Awdesh Sharma
- 2) Shri Santosh Kumar Singh
- 3) Shri Rajiv Kumar Mahto

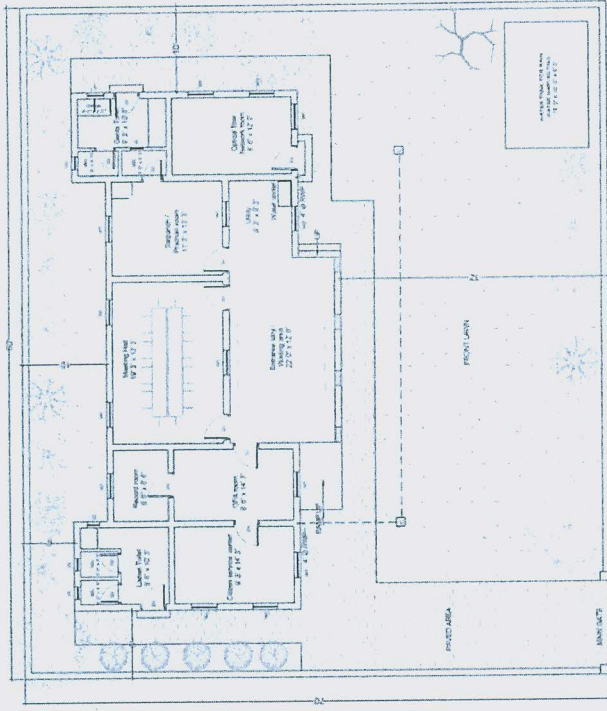


Scale: NTS

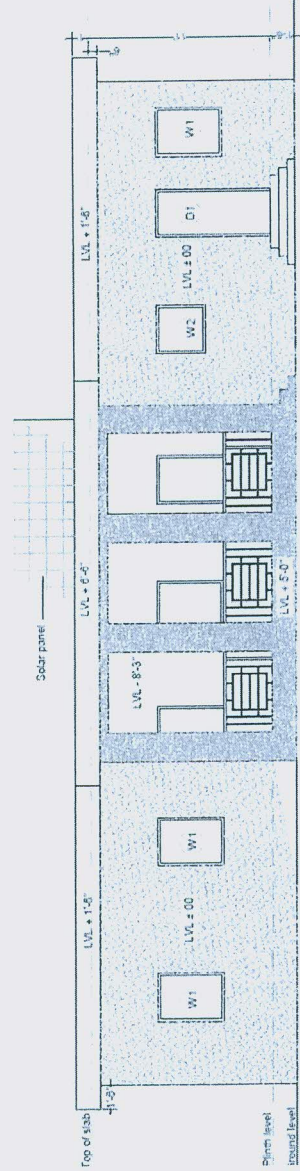
Technology: Rat-trap bond for wall, Filler slab for roof
 Covered area: 55.6 SQM (600 SFT)



Plan



Site plan



Front Elevation

Proposed layout for Gram Sachivalaya building

Name of the state: Haryana, Punjab, Uttar Pradesh

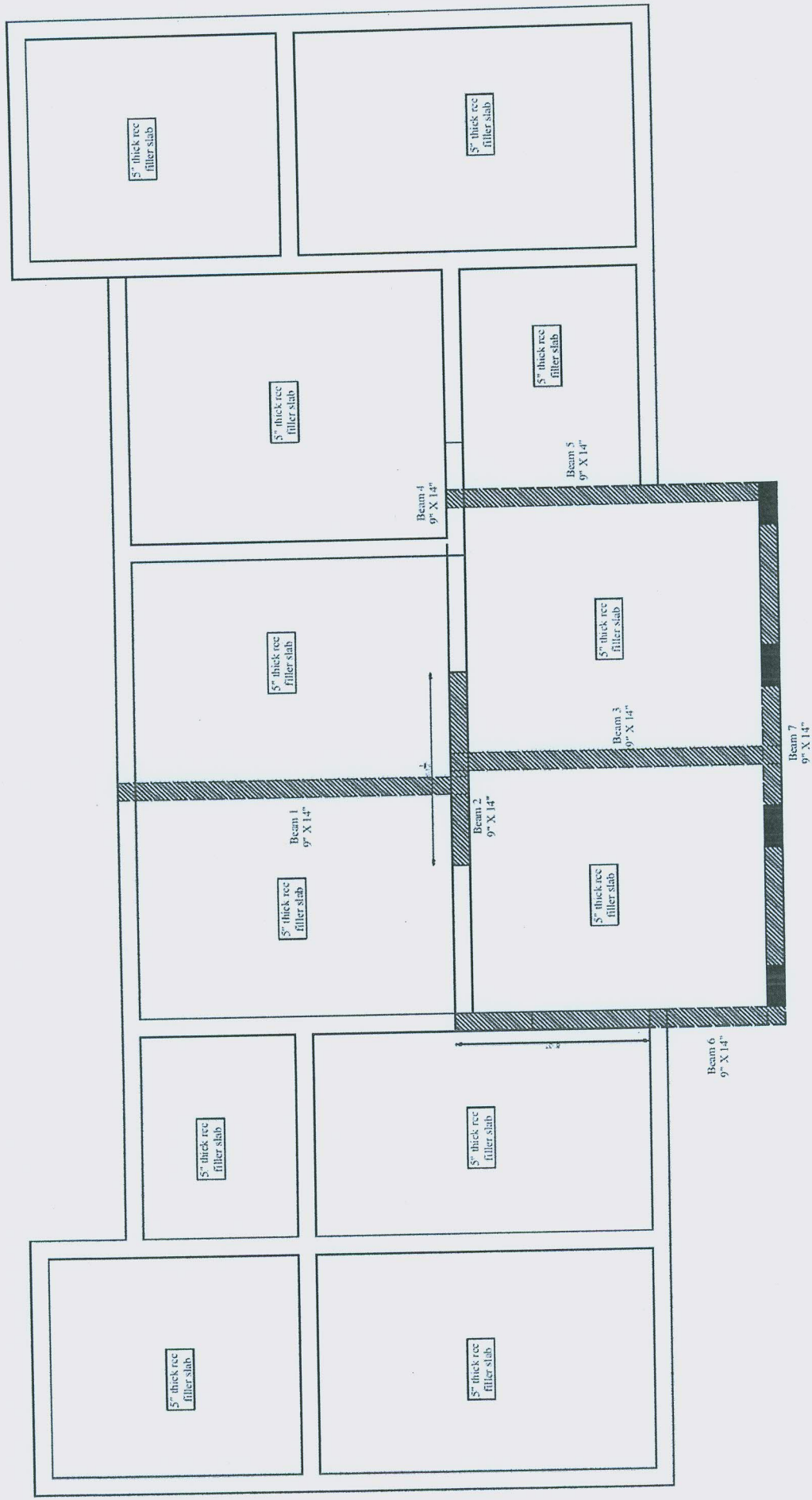
Technology: Rat-Trap bond and Filler Slab

Covered area: 148 SQM (1600 SFT)

Team Members:

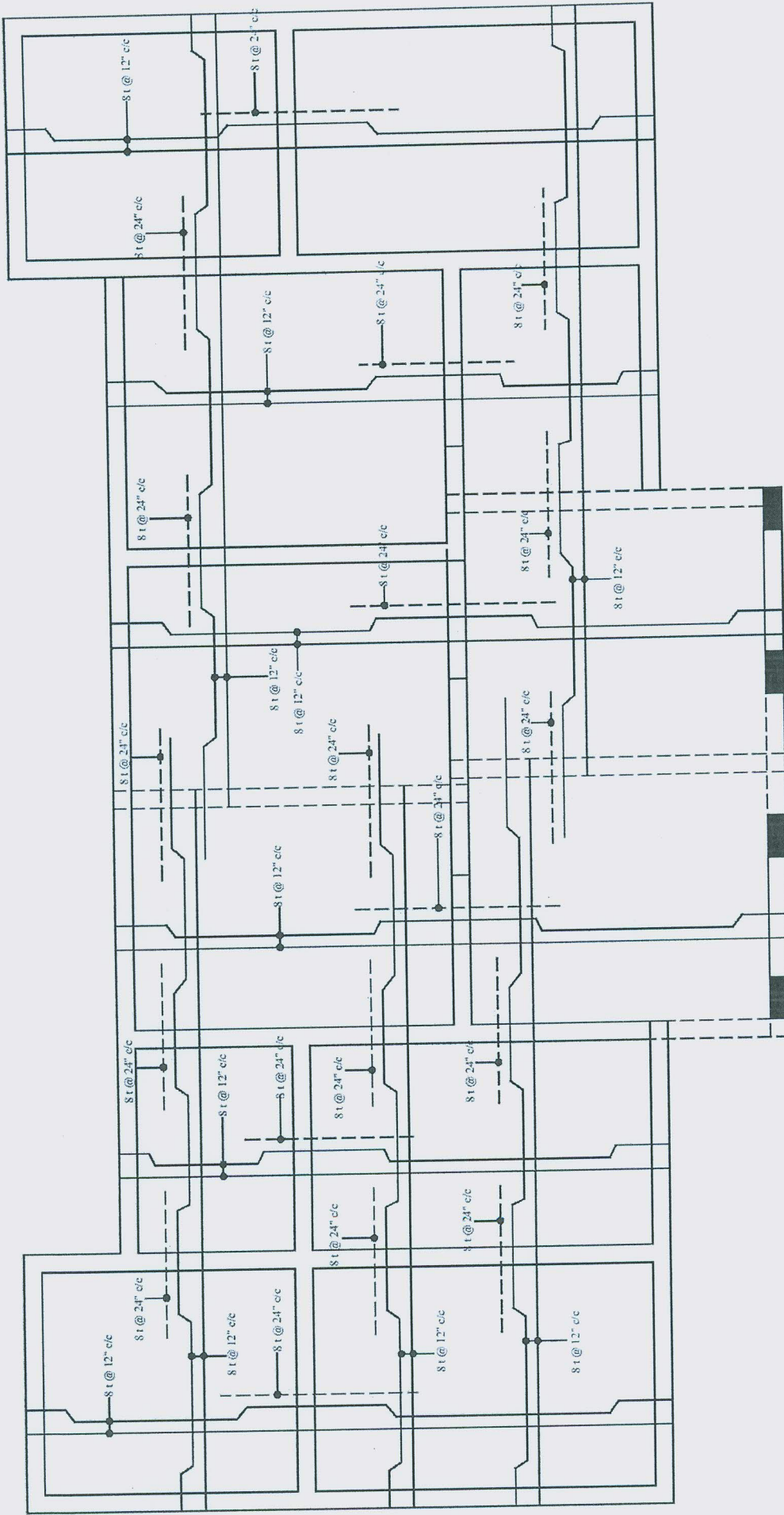
- 1) Shri. S.K. Sangawan, Haryana
- 2) Shri. Kulvir Karwal, Haryana
- 3) Shri. Chetan Prakash, Punjab
- 4) Shri. Lakhna Pal, Punjab
- 5) Shri. R.N.Pandey, Uttar Pradesh
- 6) Shri. Mukesh Kumar Sharma, Uttar Pradesh

SCALE: NTS



Filler Material :
Burnt Brick : 9" X 4.5" X 3"

Drawing Number: 2 a)	Date of Issue : 5/04/2016	Project : Panchayat Building.	Note: Concrete : M 20 grade. Steel : Fe 415 grade. (T) Cover to reinforcement : 4" ----- : Indicates top additional reinforcement. Development length is 50 times the dia of bar used. Depth of beam includes depth of slab. Dimensions : Feet (') Inches (")	Structural Consultants : MAHJAA. Bangalore.
	Revision Number:			
Revision Number:	File Name :	Scale : NTS		



Filler Material :
Burnt Brick : 9" X 4.5" X 3"

Note:
Concrete : M 20 grade.
Steel : Fe 415 grade. (T)
Cover to reinforcement : 7/8"
----- : Indicates top additional reinforcement.
Development length is 50 times the dia of bar used.
Depth of beam includes depth of slab.
Dimensions : Feet (')
Inches (")

Project : Panchayat Building.

Drawing title :
Slab reinforcement details.

Scale : NTS

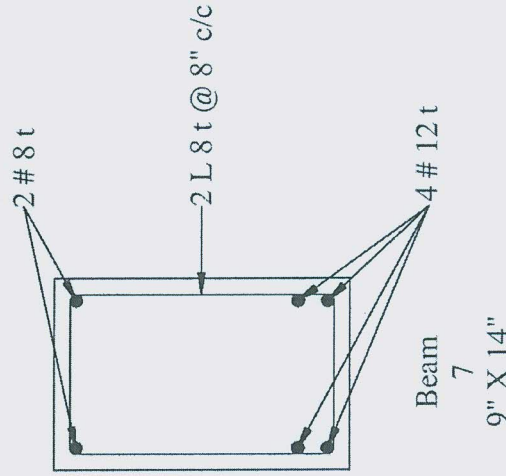
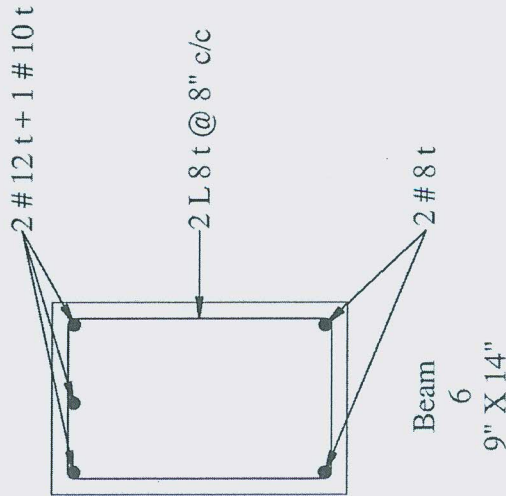
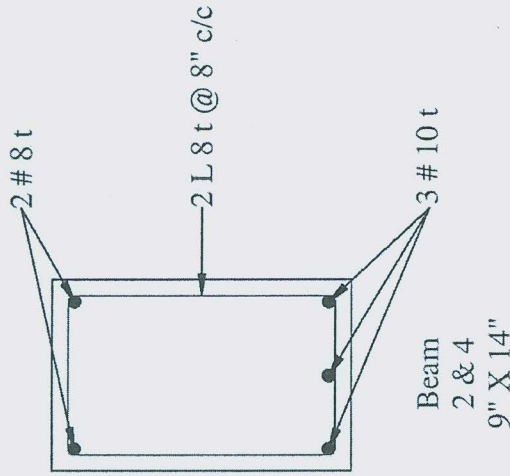
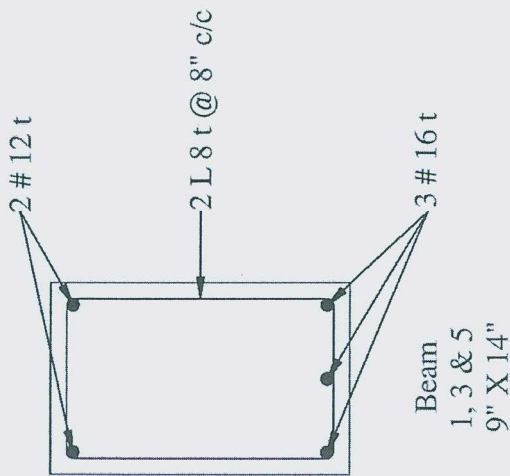
Date of Issue : 5/04/2016

File Name :

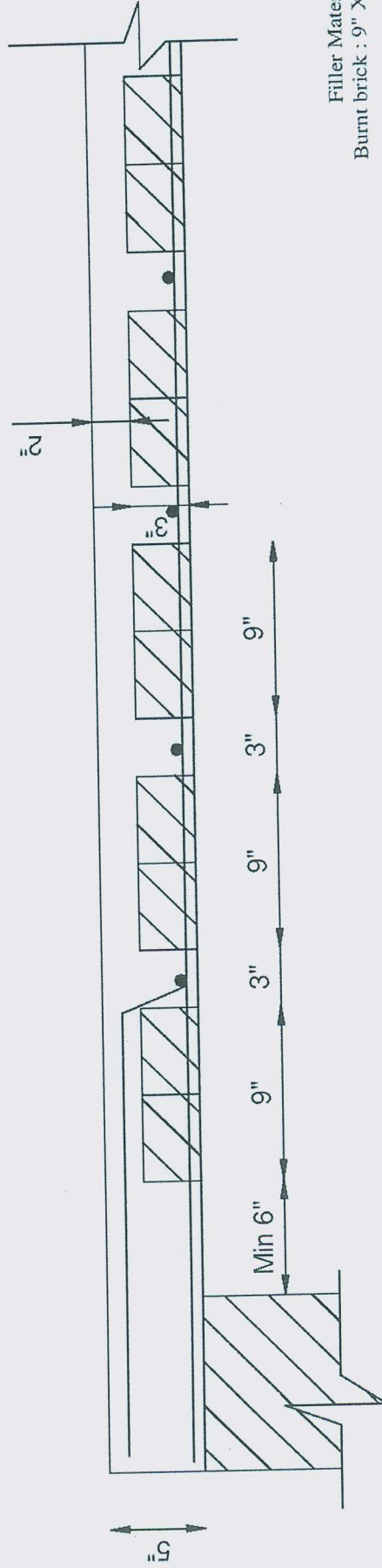
Drawing Number: 2 b)

Revision Number:

Structural Consultants :
MAHIJAA.
Bangalore.



Drawing Number: 2 c)	Date of Issue : 5/04/2016	Project : Panchayat Building.	Concrete : M 30 grade. Steel : Fe 415 grade. (C) Cover to reinforcement : 4" : Indicates top additional reinforcement. Development length is 50 times the dia of bar used. Depth of beam includes depth of slab. Dimensions : Feet (') Inches (")	Structural Consultants : MAHJAA. Bangalore.
	Revision Number:			
	File Name :			

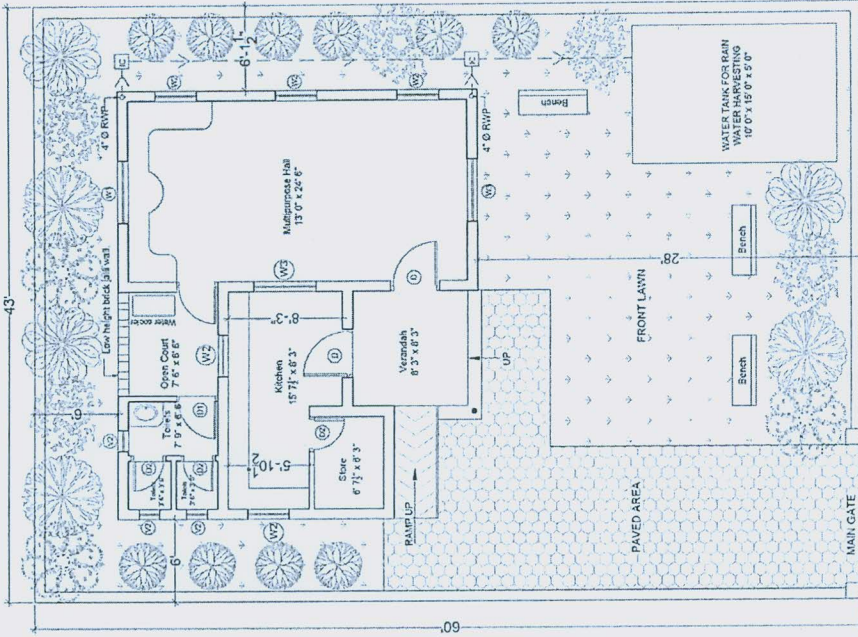


Filler Material :
Burnt brick : 9" X 7.5" X 3"

Note:

- Concrete : M 20 grade.
- Steel : Fe-415 grade. (U)
- Cover to reinforcement : 2"
- : Indicates top additional reinforcement.
- Development length is 50 times the dia of bar used.
- Depth of beam includes depth of slab.
- Dimensions : Feet (')
- Inches (")

Drawing Number: 1 d)	Date of Issue : 5/04/2016	Drawing title : Typical filler slab details.	Project : Anganwadi Building.	Structural Consultants : MAHJAA. Bangalore.
	Revision Number:			



Site plan

Proposed layout for Anganwadi Center building

Name of the state: Haryana, Punjab, Uttar Pradesh

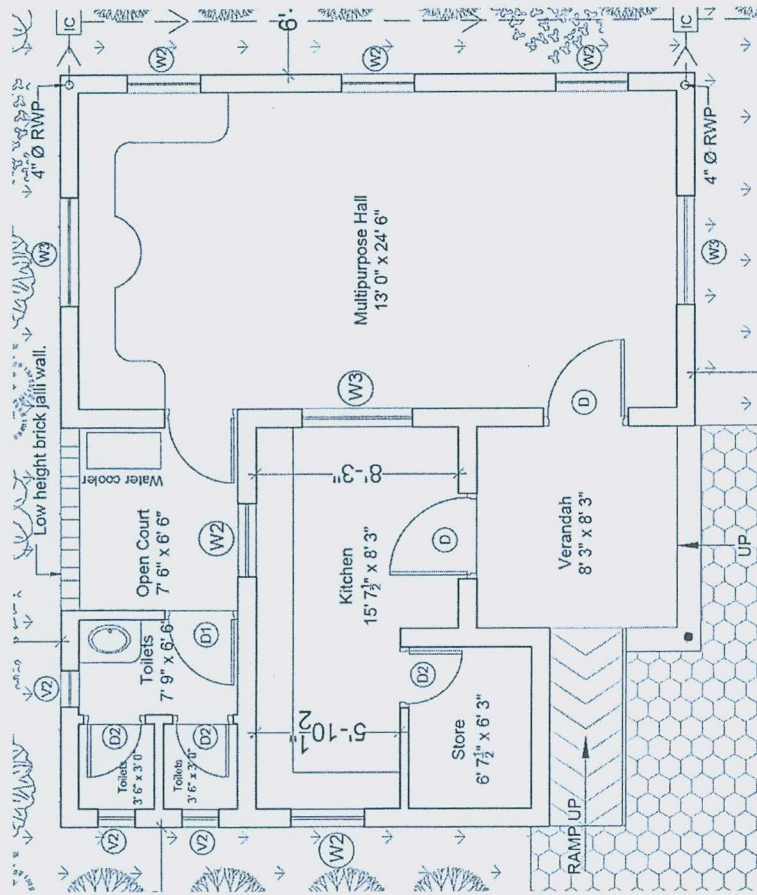
Technology: Rat-Trap bond and Filler Slab

Covered area: 65 SQM (700 SFT)

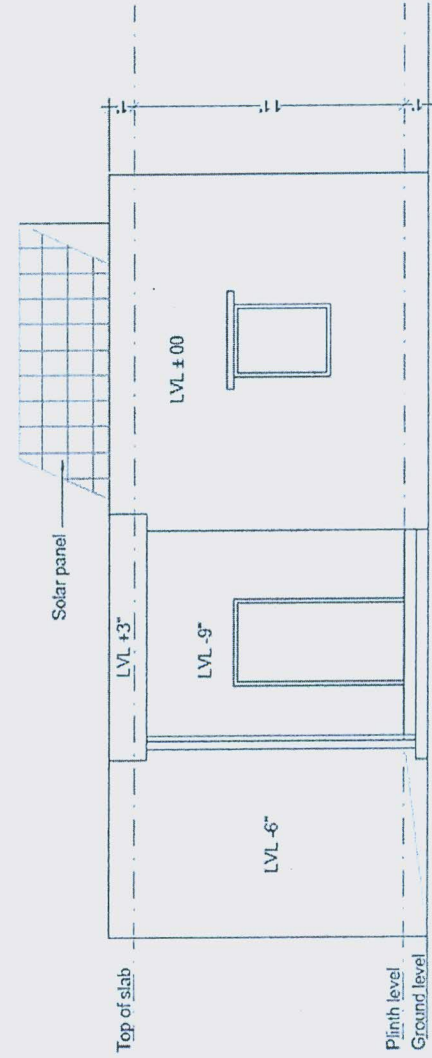
Team Members:

- 1) Shri. S.K. Sangawan, Haryana
- 2) Shri. Kulvir Karwal, Haryana
- 3) Shri. Chetan Prakash, Punjab
- 4) Shri. Lakhn Pal, Punjab
- 5) Shri. R.N.Pandey, Uttar Pradesh
- 6) Shri. Mukesh Kumar Sharma, Uttar Pradesh

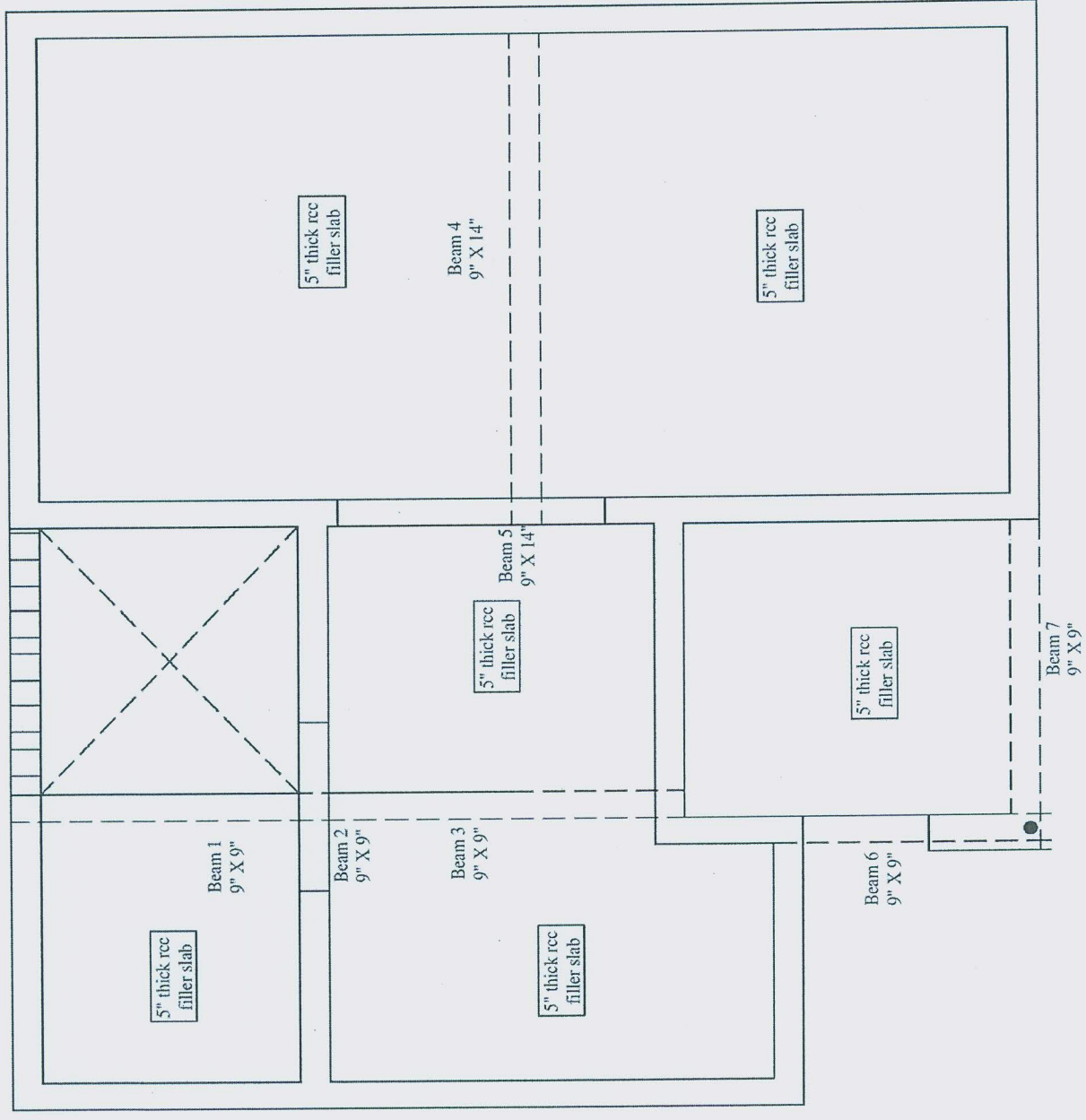
SCALE: NTS



Plan



Front Elevation



Filler Material :
Burnt Brick : 9" X 4.5" X 3"

Note:
Concrete : M 20 grade,
Steel : Fe-415 grade. (1)
Cover to reinforcement : 2"
..... : Indicates top additional reinforcement
Development length is 50 times the dia of bar used.
Depth of beam includes depth of slab.
Dimensions : Feet (')
Inches (")

Structural Consultants :
MAHD/AA,
Bangalore.

Project : Anganwadi Building.

Drawing title :
Beam and slab layout.

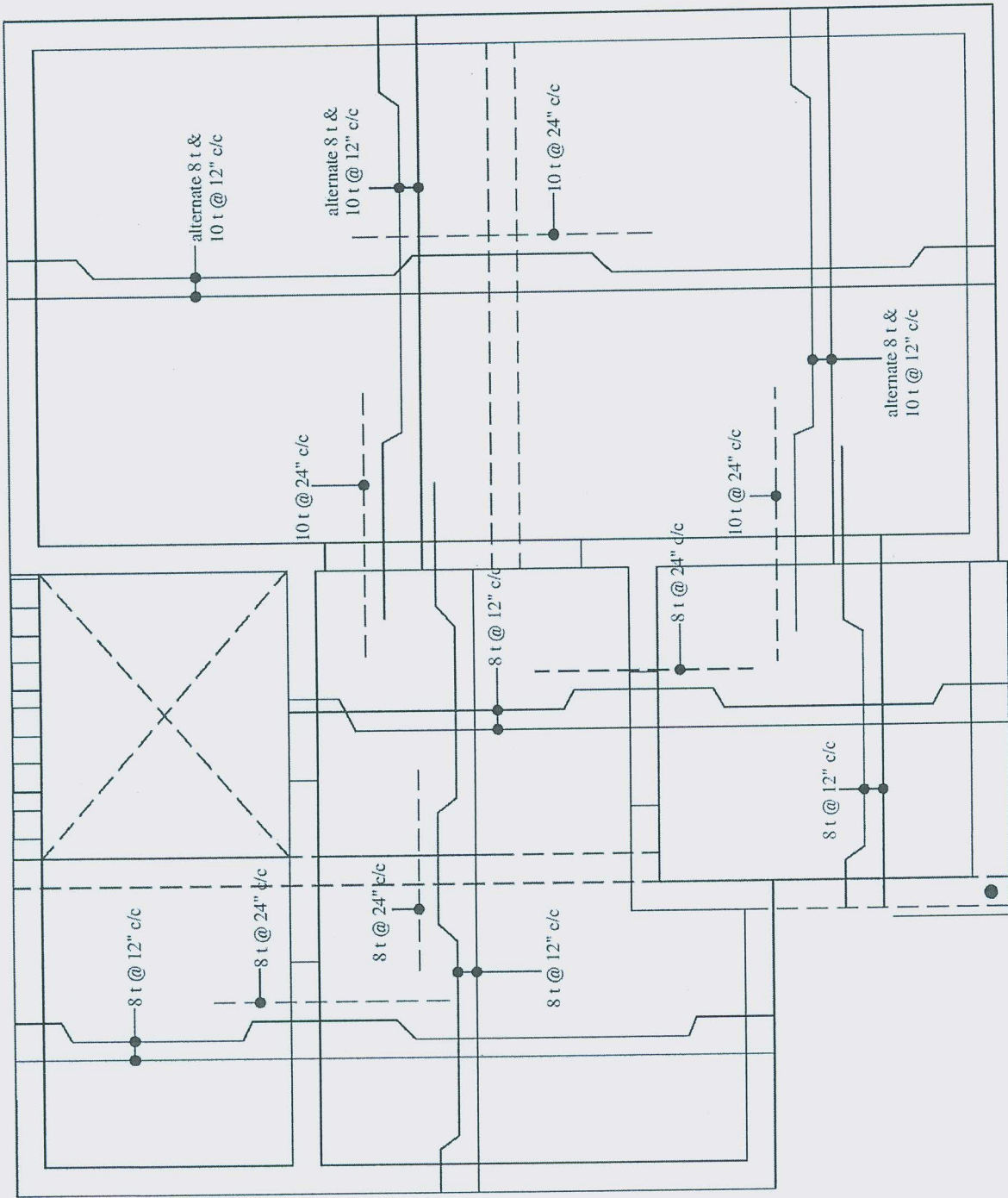
Scale : NTS

Date of Issue : 5/04/2016

File Name :

Drawing Number: 1 a)

Revision Number:



Note:
 Concrete : M 20 grade,
 Steel : Fe 415 grade. (t)
 Cover to reinforcement : 5"
 - - - - - : Indicates top additional reinforcement.
 Development length is 50 times the dia of bar used.
 Depth of beam includes depth of slab.
 Dimensions : Feet (')
 Inches (")

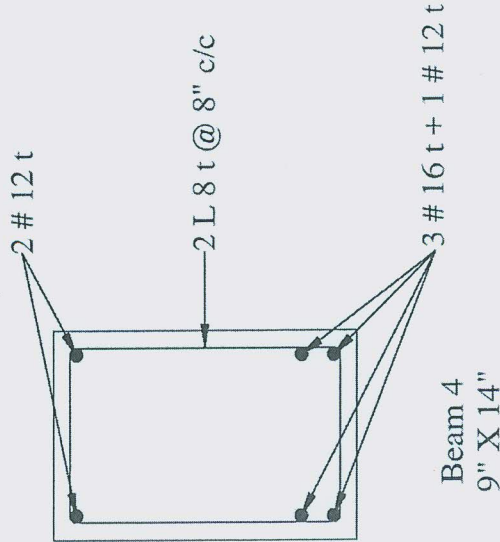
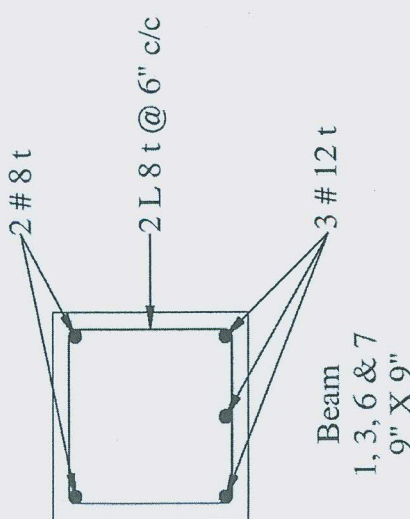
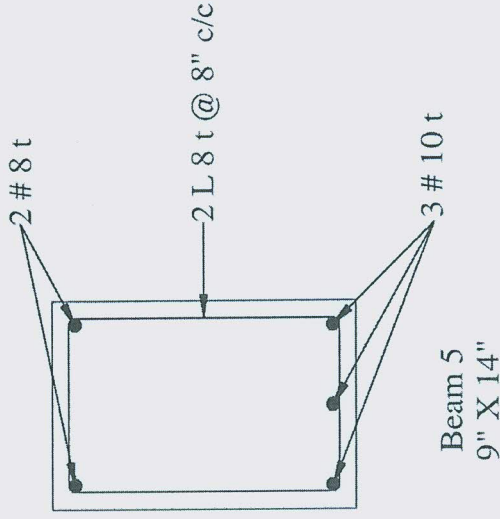
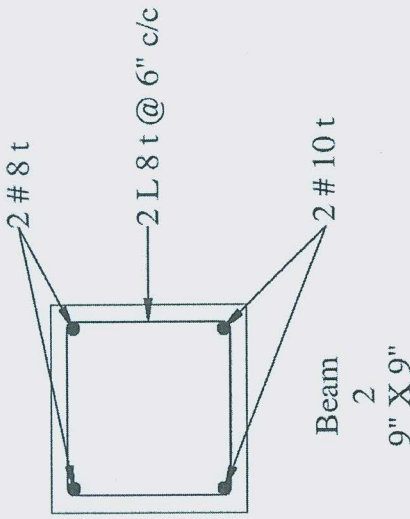
Structural Consultants :
 MAHJAA,
 Bangalore.

Project : Anganwadi Building.

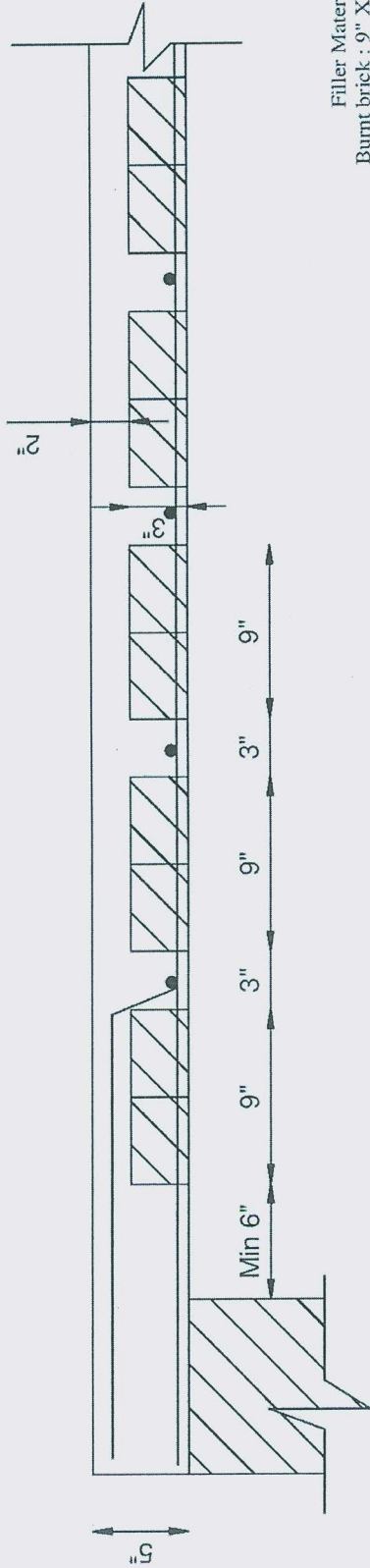
Drawing title :
 Slab reinforcement details.
 Scale : NTS

Date of Issue : 5/04/2016
 File Name :

Drawing Number: 1 b)
 Revision Number:

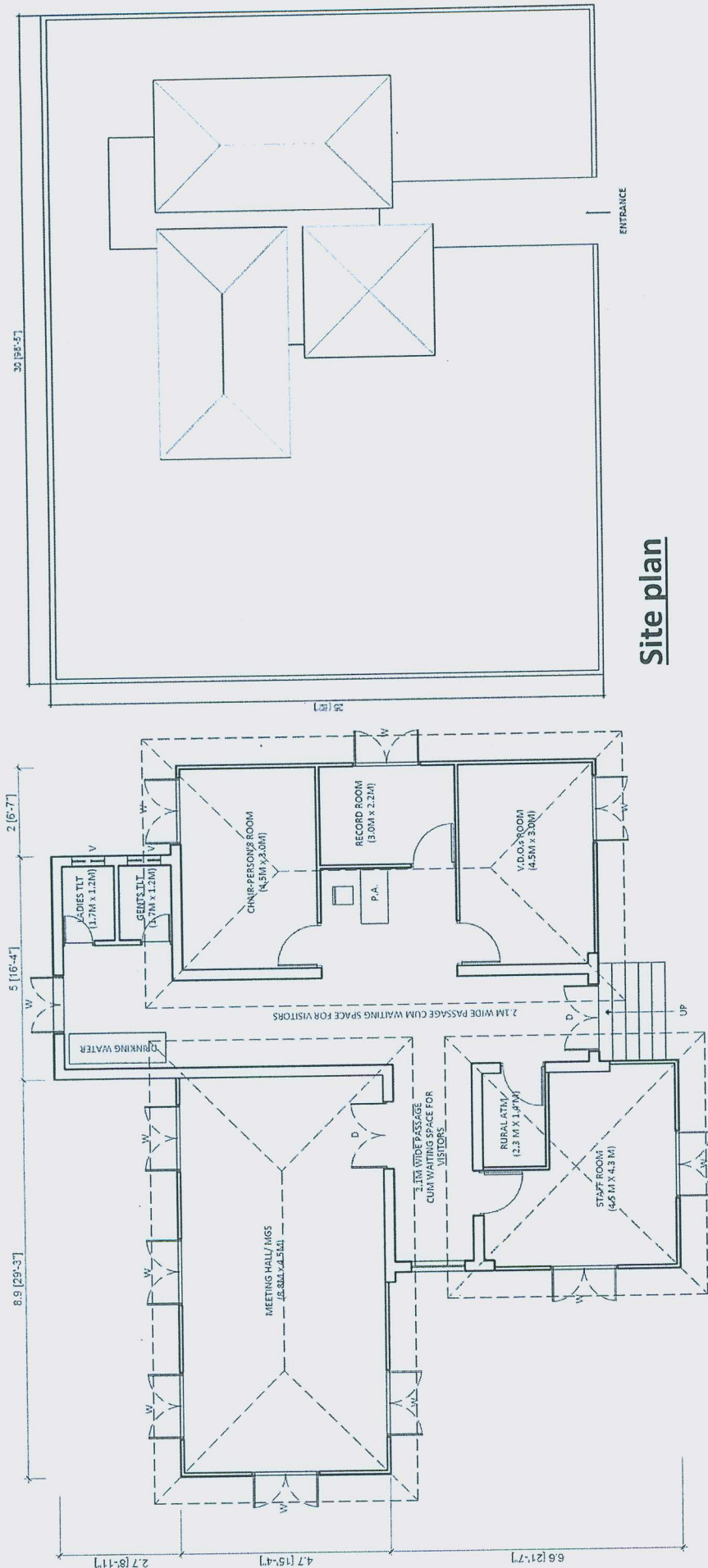


Drawing Number: 1 c)	Date of Issue : 5/04/2016	Project : Anganwadi Building.	Note: Concrete : M 20 grade. Steel : Fe 415 grade. (t) Cover to reinforcement : 7/8" ----- : Indicates top additional reinforcement. Development length is 50 times the dia of bar used. Depth of beam includes depth of slab. Dimensions : Feet (') Inches (")	Structural Consultants : MAHJAA, Bangalore.
	Revision Number:			
Revision Number:	File Name :			

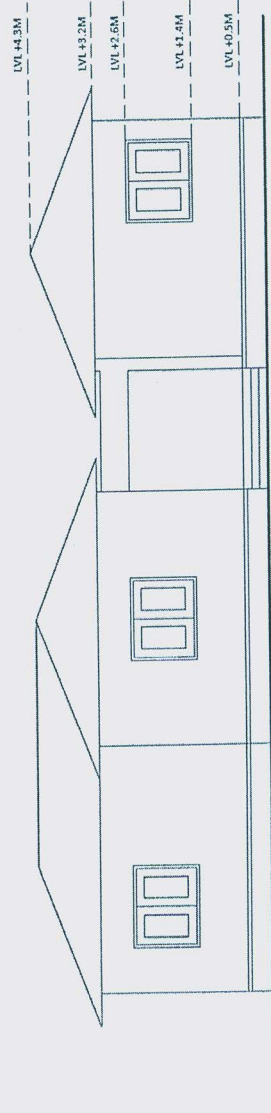


Filler Material :
Burnt brick : 9" X 7.5" X 3"

Drawing Number: 1 d)	Date of Issue : 5/04/2016	Project : Anganwadi Building.	Note: Concrete : M 20 grade. Steel : Fe 415 grade. (T) Cover to reinforcement : $\frac{1}{4}$ " ----- : Indicates top additional reinforcement. Development length is 50 times the dia of bar used. Depth of beam includes depth of slab. Dimensions : Feet (') Inches (")	Structural Consultants : MAHJAA. Bangalore.
	Revision Number:			
Drawing title : Typical filler slab details.		Scale : NTS		



Plan



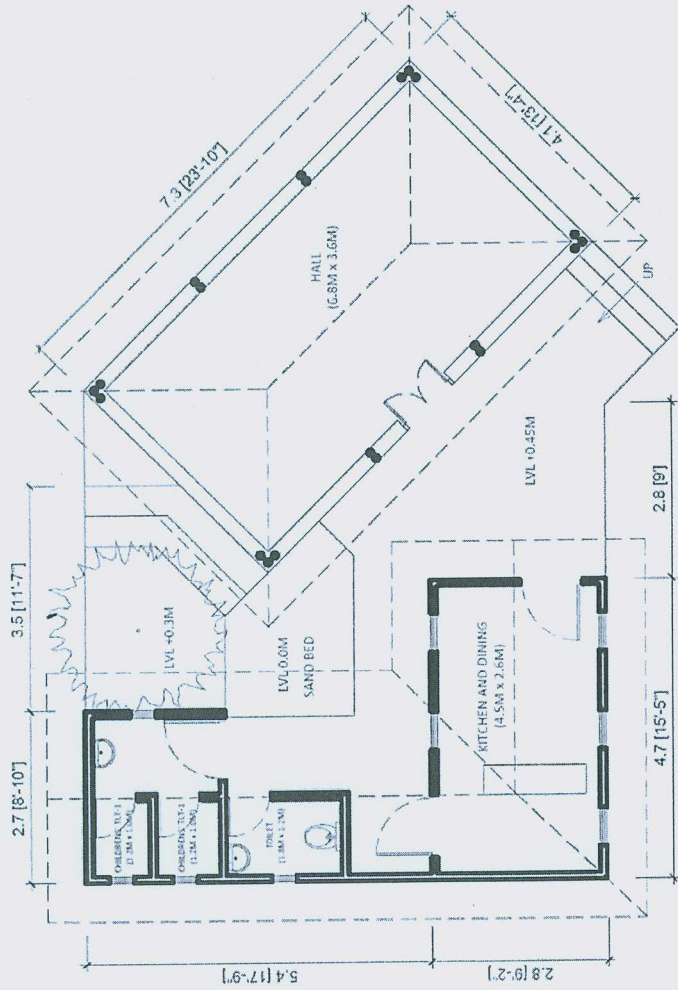
Front Elevation

Site plan

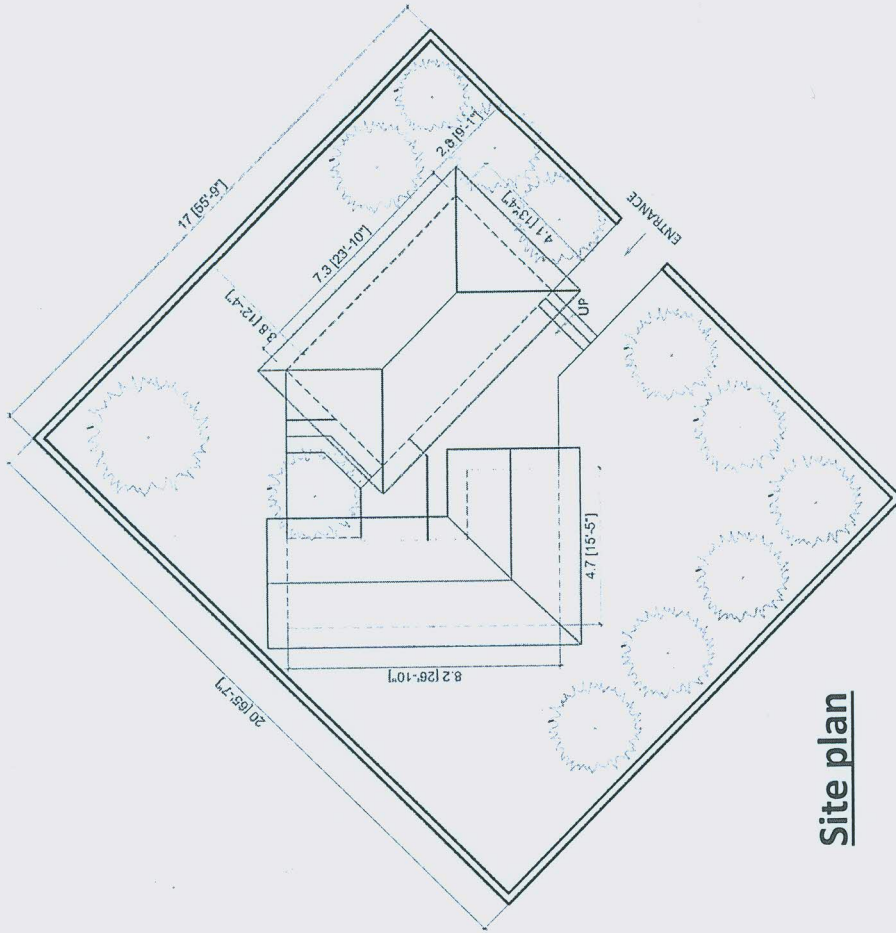
PROPOSED LAYOUT FOR TYPICAL GRAM PANCHAYAT BUILDING

Name of the state: Arunachal Pradesh
 Technology: Bamboo based technologies
 Covered area: 150 SQM (1614 SFT)
 Team Members: Shri. Nani Chatung
 Scale: NTS

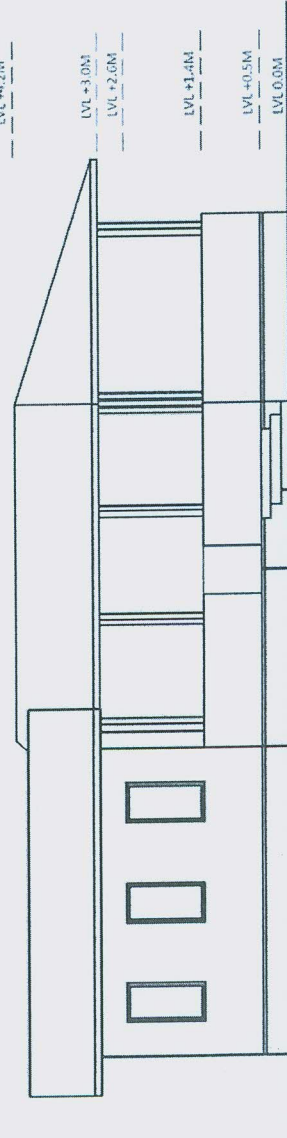




Plan



Site plan



Front Elevation

PROPOSED LAYOUT FOR TYPICAL ANGANWADI CENTRE BUILDING

Name of the state: Arunachal Pradesh
 Technology: Bamboo based technologies
 Covered area: 56 SQM (600 SFT)
 Team Members: Shri. Nani Chatung
 Scale: NTS

