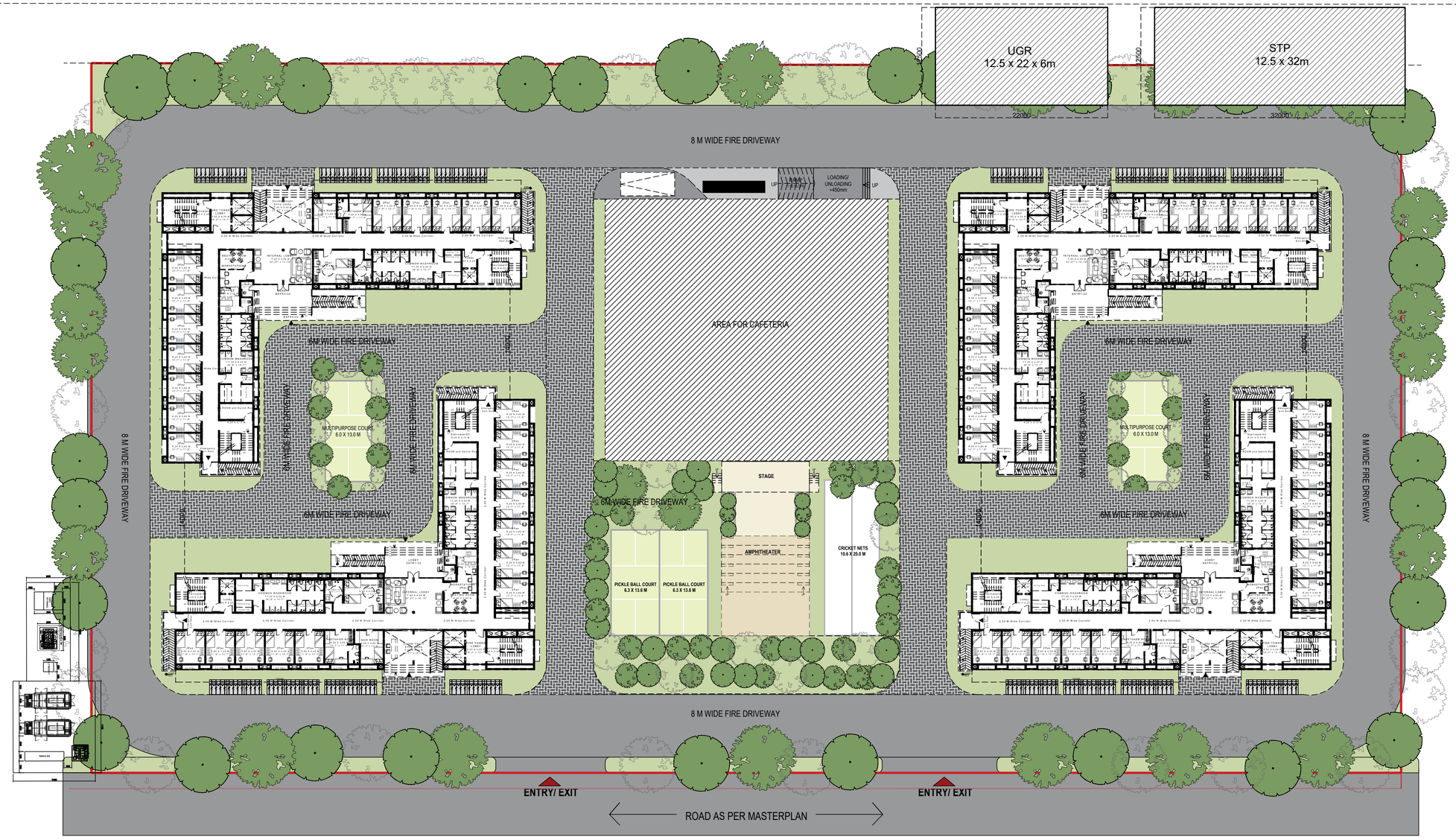
Annexure B : Drawings

- Architectural Drawing Set
- Structural Drawing Set
- Electrical Drawing Set
- PHE Drawing Set
- Fire Fighting Drawing Set
- FAPA Drawing Set
- CCTV Drawing Set

Architectural drawing Set



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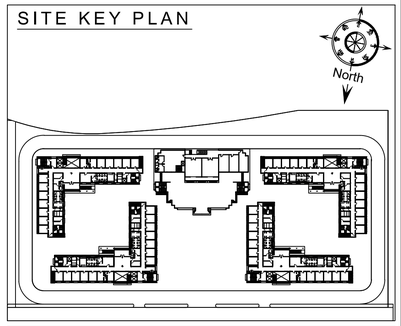
NOTE:

1. For Road and formation levels,refer Architectural Drawing.
2. Refer Structural Drawing for Structural Design and Specification.
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Signage Drawing for execution.

SITE KEY PLAN



REV NO.	DATE	DESCRIPTION	BY
R0			

CLIENT: **Birla Institute of Technology**
Mesra,Ranchi(India)-835215

PROJECT: **BOYS HOSTEL AT BIT MESRA**

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

TITLE: MASTERPLAN - BOYS HOSTEL AND CAFETERIA

PURPOSE: FOR TENDER ONLY

DRAWN		JOB NO.		APPROVED DATE:	00-00-2025	
DESIGNED	---	SCALE	NTS@A1	DRG NO		Rev
APPROVED	----	DATE	12-09-2025	BIT/TPIS/AR/MP		R0

DOORS SCHEDULE : (ALL FLOOR) (FLOOR LINTEL HEIGHT 2400MM)

NOTATION	DOOR SIZE		CIVIL OPEN.		BASIC		MATERIAL
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL	LINTEL	SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)

NOTATION	WINDOW SIZE		CIVIL OPEN.		BASIC		MATERIAL	
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL	LINTEL	FRAME	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

WALL HEIGHT LEGEND

NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207

WALL TYPE LEGEND

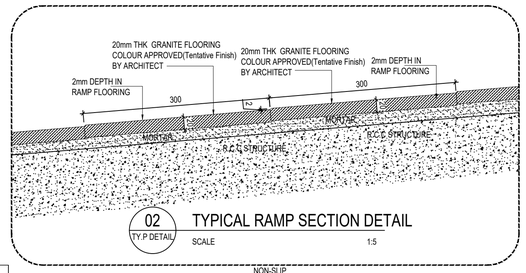
NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

Note:
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY

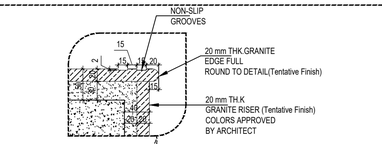
Note:
1) REFER STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS AND SPECIFICATIONS
2) ALL PHE CORE CUTTING SLAB AS PER STRUCTURAL ENGINEERS INSTRUCTION & APPROVAL
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION

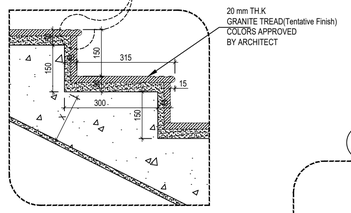
FLOOR COLUMN DETAILS

NO	DESCRIPTION	COLOUR CODE
01	FLOOR TERMINATION COLUMN	

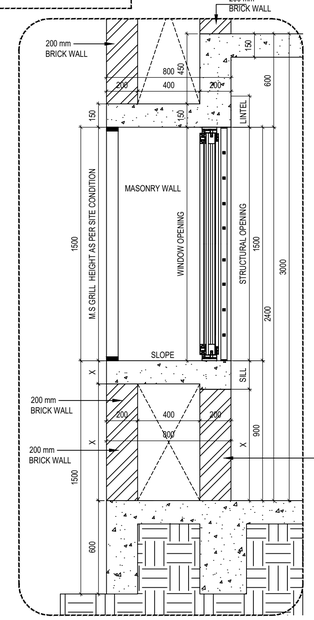


02 TY.P DETAIL — TYPICAL RAMP SECTION DETAIL
SCALE 1:5





01 TY.P DETAILS — TYPICAL STEPS SECTION DETAILS
SCALE 1:10



03 TY.DETAILS — TYPICAL WINDOW CHAJJA PROJECTION SECTION-X
SCALE 1:20

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NOTE:

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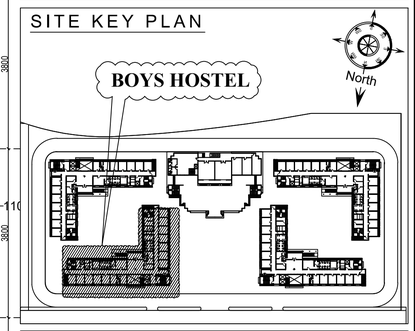
2. Refer Structural Drawing for Structural Design and Specification.
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Signage Drawing for execution.

SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
R0	15-09-2025		RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT

PHE ,FIRE & ELECTRICAL CONSULTANT

TITLE: Boys Hostels-GROUND FLOOR BLOCK WORK LAYOUT PLAN

PURPOSE: FOR TENDER ONLY

DRAWN		JOB NO.	--------	APPROVED DATE:	00-00-2025
DESIGNED	---	SCALE	NTS@A1	DRG NO	Rev
APPROVED	----	DATE		BIT/TPIS/BW/Ground/200	R 0

GF BOYS HOSTELS — BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS

DOORS SCHEDULE : (ALL FLOOR)

NOTATION	DOOR SIZE		CIVIL OPEN.		DOOR LINTEL HEIGHT (2400MM) BASIC		MATERIAL INFORMATION
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SIDE LIGHT		SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)

NOTATION	WINDOWS SIZE		CIVIL OPEN.		BASIC INFORMATION		MATERIAL	
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	LINTEL	FRAMES	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

WALL HEIGHT LEGEND

NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

WALL TYPE LEGEND

NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

Note:
1) REFER STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS AND SPECIFICATIONS
2) ALL PHE CORE CUTTING SLAB AS PER STRUCTURAL ENGINEERS INSTRUCTION & APPROVAL
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION

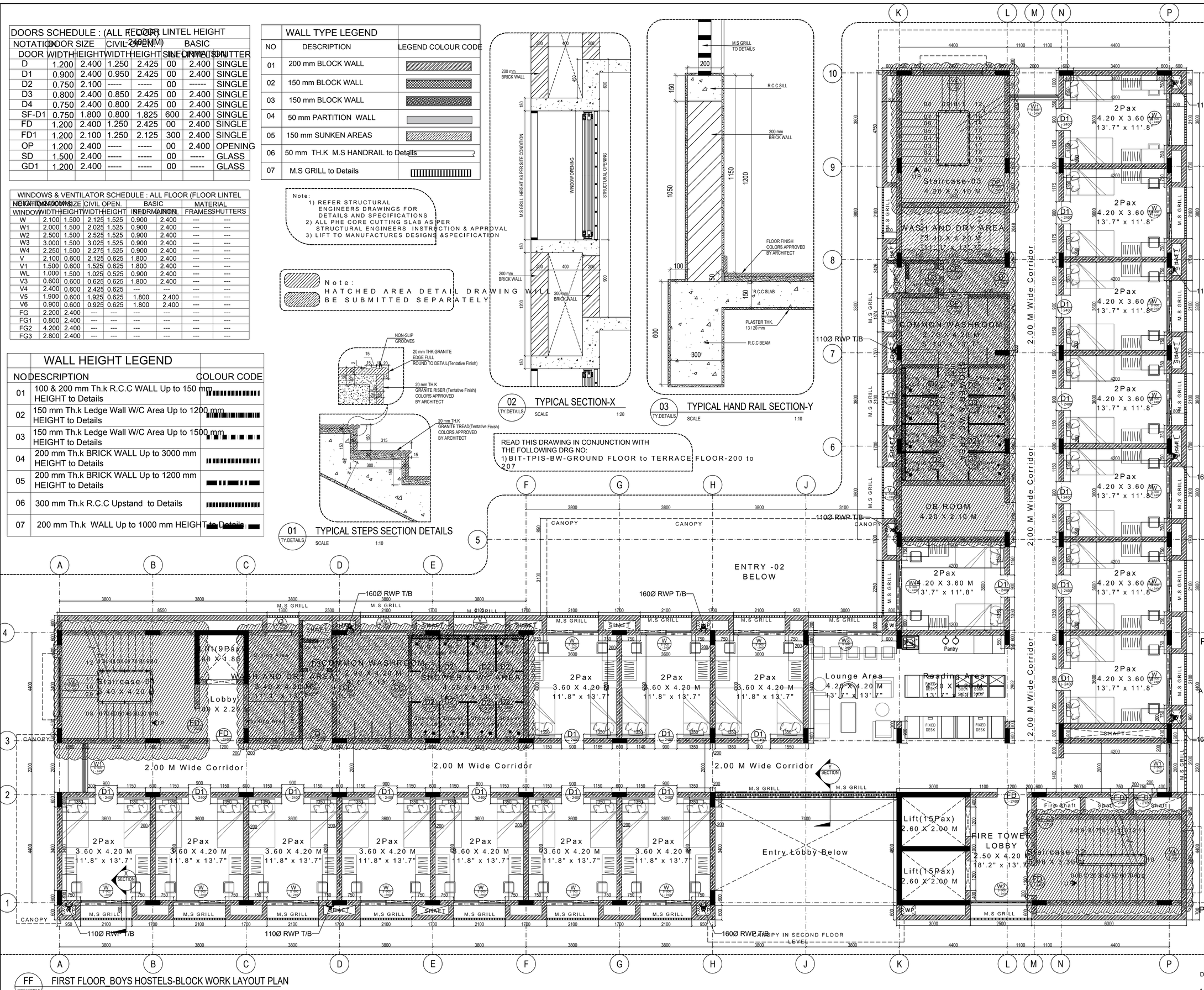
Note:
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY

02 TY.DETAILS TYPICAL SECTION-X
SCALE 1:20

03 TY.DETAILS TYPICAL HAND RAIL SECTION-Y
SCALE 1:10

01 TY.DETAILS TYPICAL STEPS SECTION DETAILS
SCALE 1:10

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207



FF BOYS HOSTELS FIRST FLOOR BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS

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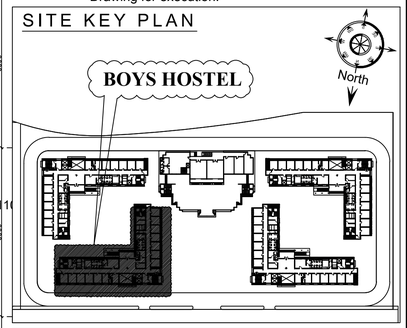
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Sign Drawing for execution.

SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
R0	15-09-2025	GOOD FOR CONSTRUCTION	RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

TITLE: Boys Hostels-FIRST BLOCK WORK LAYOU

PURPOSE:

DRAWN	RTR	JOB NO	APPROVED DATE: 00-00-2025
DESIGNED	---	SCALE NTS@A1	DRG NO BIT/TPIS/BW/First/200 Rev R0
APPROVED	---	DATE 23-12-2025	

DOORS SCHEDULE : (ALL FLOOR)							
NOTATION	DOOR SIZE (CIVIL-SYSTEM)				BASIC		
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	INFORMATION	SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)								
NOTATION	WINDOW SIZE		CIVIL OPEN.		BASIC		MATERIAL	
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	INFORMATION	FRAMES	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

WALL HEIGHT LEGEND

NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

WALL TYPE LEGEND

NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

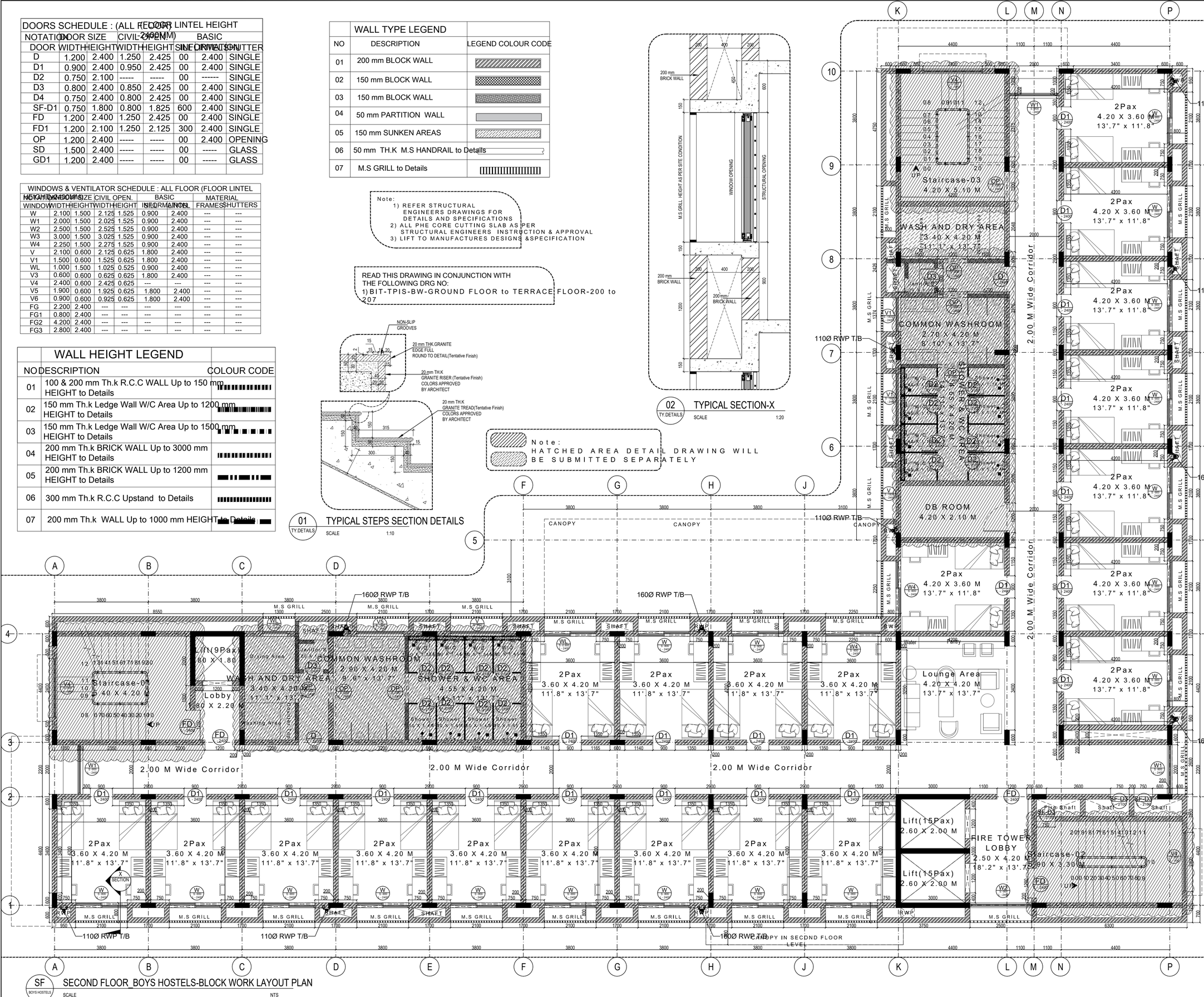
Note:
1) REFER STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS AND SPECIFICATIONS
2) ALL PHE CORE CUTTING SLAB AS PER STRUCTURAL ENGINEERS INSTRUCTION & APPROVAL
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207

01 TY.DETAILS — TYPICAL STEPS SECTION DETAILS
SCALE 1:10

02 TY.DETAILS — TYPICAL SECTION-X
SCALE 1:20

Note:
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY



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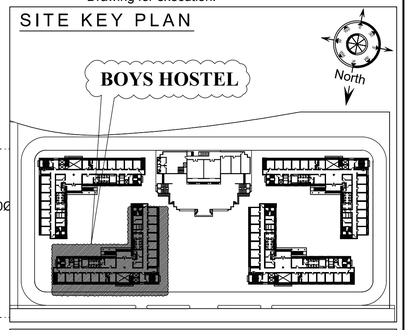
SITE KEY PLAN



REV NO.	DATE	DESCRIPTION	BY
R0			

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

TITLE: Boys Hostels-SECOND FLOOR BLOCK WORK LAYOUT PLAN

PURPOSE: FOR TENDER ONLY

DRAWN	RTR	JOB NO	---------	APPROVED DATE:	00-00-2025
DESIGNED	---	SCALE	NTS@A1	DRG NO	Rev
APPROVED	---	DATE		BIT/TPIS/BW/Second/202	R0

SF BOYS HOSTELS — SECOND FLOOR_BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS

DOORS SCHEDULE : (ALL FLOOR) FLOOR LINTEL HEIGHT 2400MM

NOTATION	DOOR SIZE		CIVIL OPEN.		BASIC		
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL	LINTEL	SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)

NOTATION (WINDOWS)	DOOR SIZE		CIVIL OPEN.		BASIC INFORMATION		MATERIAL	
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL	LINTEL	FRAMES	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

WALL HEIGHT LEGEND

NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

WALL TYPE LEGEND

NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

02 TY.DETAILS — TYPICAL HAND RAIL SECTION-B
SCALE 1:10

02 TY.DETAILS — TYPICAL SECTION-A
SCALE 1:20

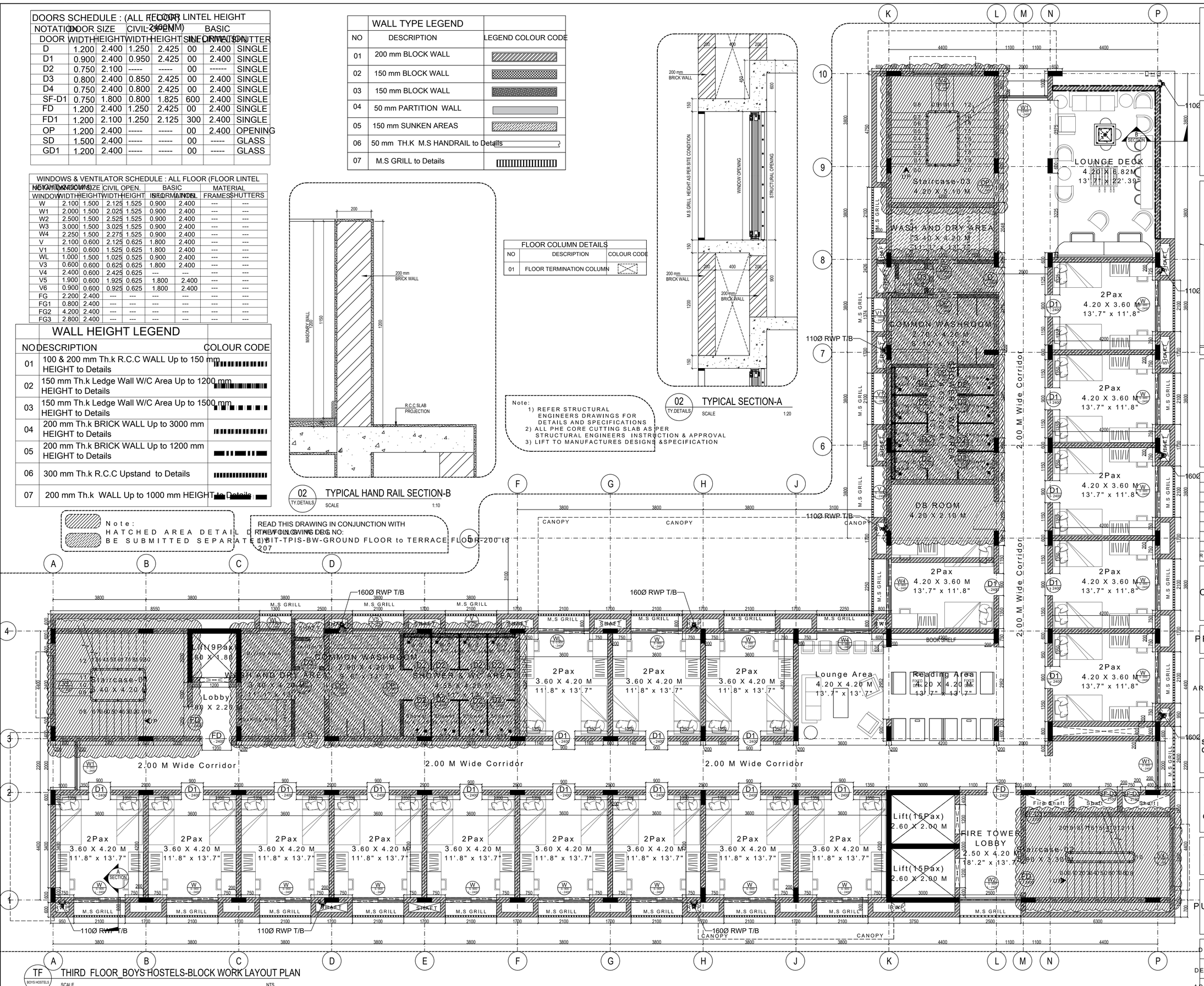
FLOOR COLUMN DETAILS

NO	DESCRIPTION	COLOUR CODE
01	FLOOR TERMINATION COLUMN	

Note:
1) REFER STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS AND SPECIFICATIONS.
2) ALL PHE CORE CUTTING SLAB AS PER STRUCTURAL ENGINEERS INSTRUCTION & APPROVAL
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION

Note:
HATCHED AREA DETAIL DRAWING SHALL BE SUBMITTED SEPARATELY

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207



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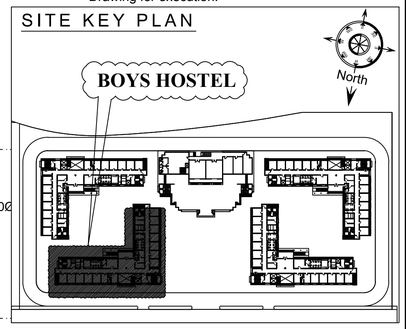
3. Do not scale the drawings, follow only written dimensions.

NOTE:
1. For Road and formation levels,refer Architectural Drawing
2. Refer Structural Drawing for Structural Design and Specification.
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Sign Drawing for execution.

SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
R0	15-09-2025		RTR

CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT — BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT

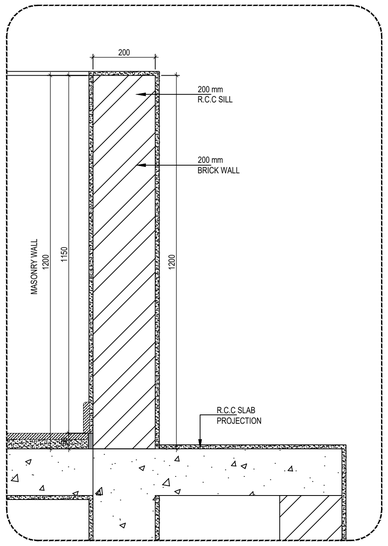
PHE ,FIRE & ELECTRICAL CONSULTANT

TITLE — Boys Hostels-THIRD BLOCK WORK LAYOU

PURPOSE — FOR TENDER ONLY

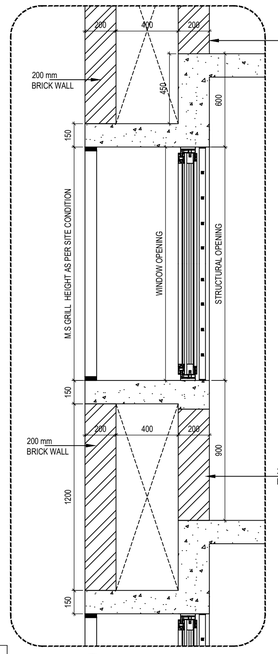
DRAWN	RTR	JOB NO	---------
DESIGNED	---	SCALE	NTS@A1
APPROVED	---	DATE	00-00-2025
APPROVED DATE:			
DRG NO			BIT/TPIS/BW/Third/200
Rev			R0

TF BOYS HOSTELS — THIRD FLOOR_BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS



01 TY.DETAILS — TYPICAL HAND RAIL SECTION-A

SCALE 1:10



02 TY.DETAILS — TYPICAL SECTION-B

SCALE 1:20

DOORS SCHEDULE : (ALL FLOOR)							
NOTATION	DOOR SIZE		CIVIL OPEN.		LINTEL HEIGHT (MM)	BASIC INFORMATION	
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SIDE LIGHT		SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

FLOOR COLUMN DETAILS		
NO	DESCRIPTION	COLOUR CODE
01	FLOOR TERMINATION COLUMN	

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400 MM)								
NOTATION	WINDOW SIZE		CIVIL OPEN.		BASIC INFORMATION		MATERIAL	
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL		FRAMES	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

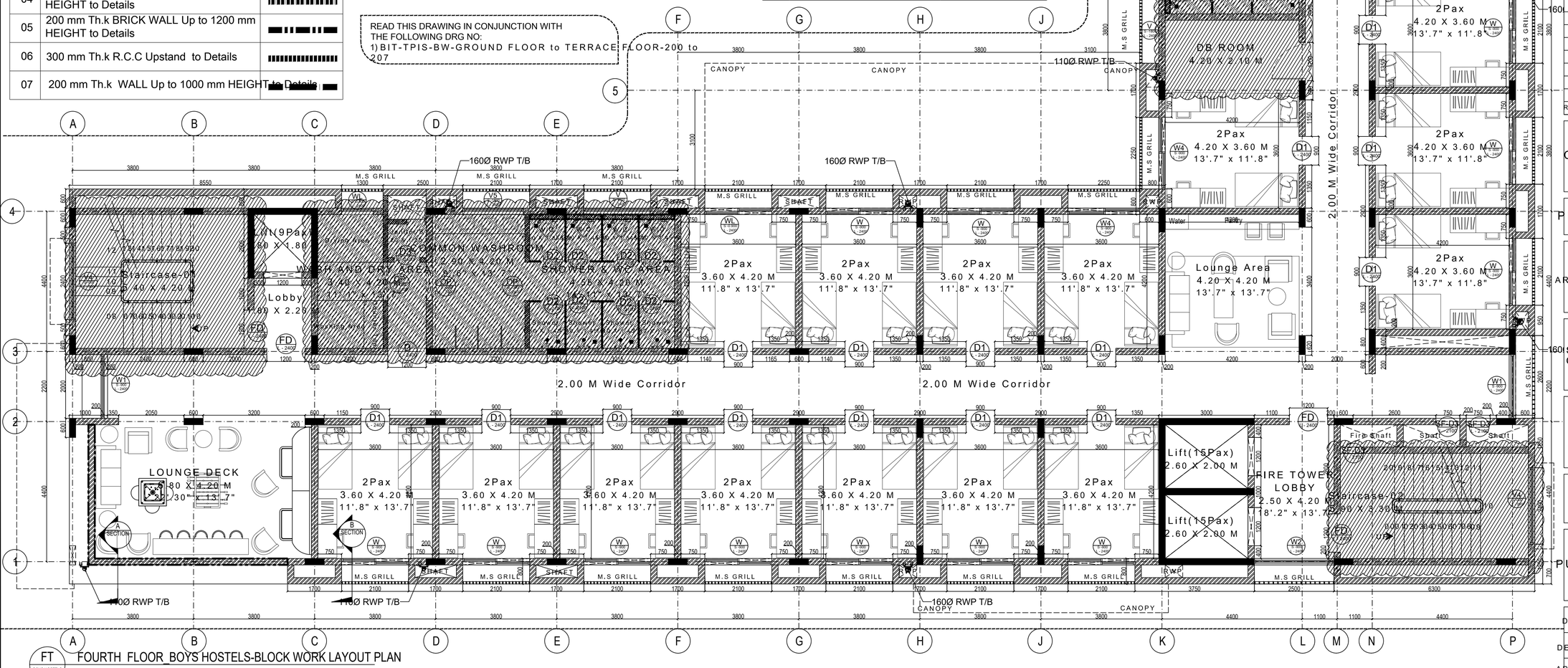
Note:
1) REFER STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS AND SPECIFICATIONS
2) ALL PHE CORE CUTTING SLAB AS PER STRUCTURAL ENGINEERS INSTRUCTION & APPROVAL
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION

WALL TYPE LEGEND		
NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

WALL HEIGHT LEGEND		
NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

Note:
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207



FT BOYS HOSTELS — FOURTH FLOOR_BOYS HOSTELS-BLOCK WORK LAYOUT PLAN

SCALE NTS

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NOTE:

1. For Road and formation levels,refer Architectural Drawing
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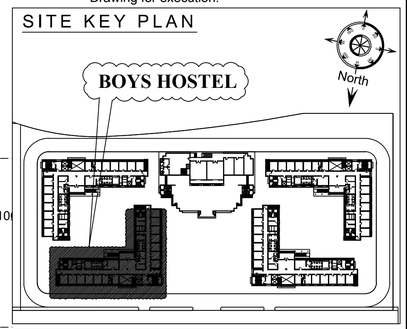
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Sign Drawing for execution.

SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
R0	15-09-2025		RTR

CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT — BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT

PHE ,FIRE & ELECTRICAL CONSULTANT

TITLE — Boys Hostels-FOURTH BLOCK WORK LAYOU

PURPOSE — FOR TENDER ONLY

DRAWN	RTR	JOB NO	--------	APPROVED DATE:	00-00-2025
DESIGNED	---	SCALE	NTS@A1	DRG NO	Rev
APPROVED	---	DATE		BIT/TPIS/BW/Fourth/204	

DOORS SCHEDULE : (ALL FLOOR LINTEL HEIGHT 2400MM)

NOTATION	DOOR SIZE		CIVIL OPEN.		BASIC		
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL	LINTEL	SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	-----	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)

NOTATION	WINDOW SIZE		CIVIL OPEN.		BASIC		MATERIAL	
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL	LINTEL	FRAMES	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

WALL HEIGHT LEGEND

NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

WALL TYPE LEGEND

NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

Note :
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207

Note:
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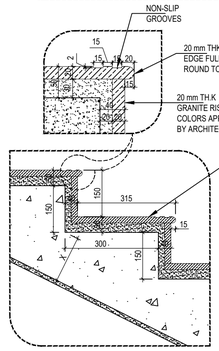
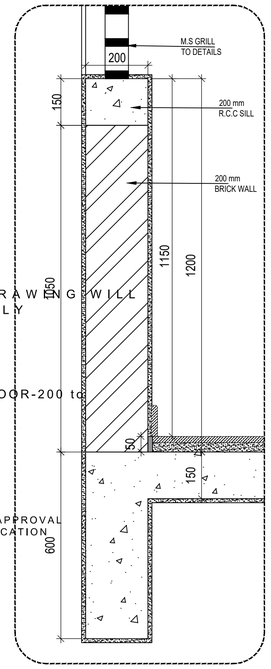
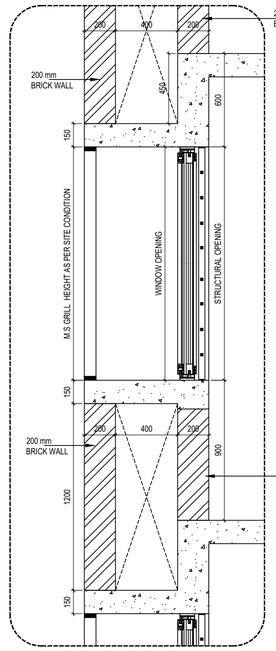
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION



01 TY.DETAILS — TYPICAL STEPS SECTION DETAILS
SCALE 1:10



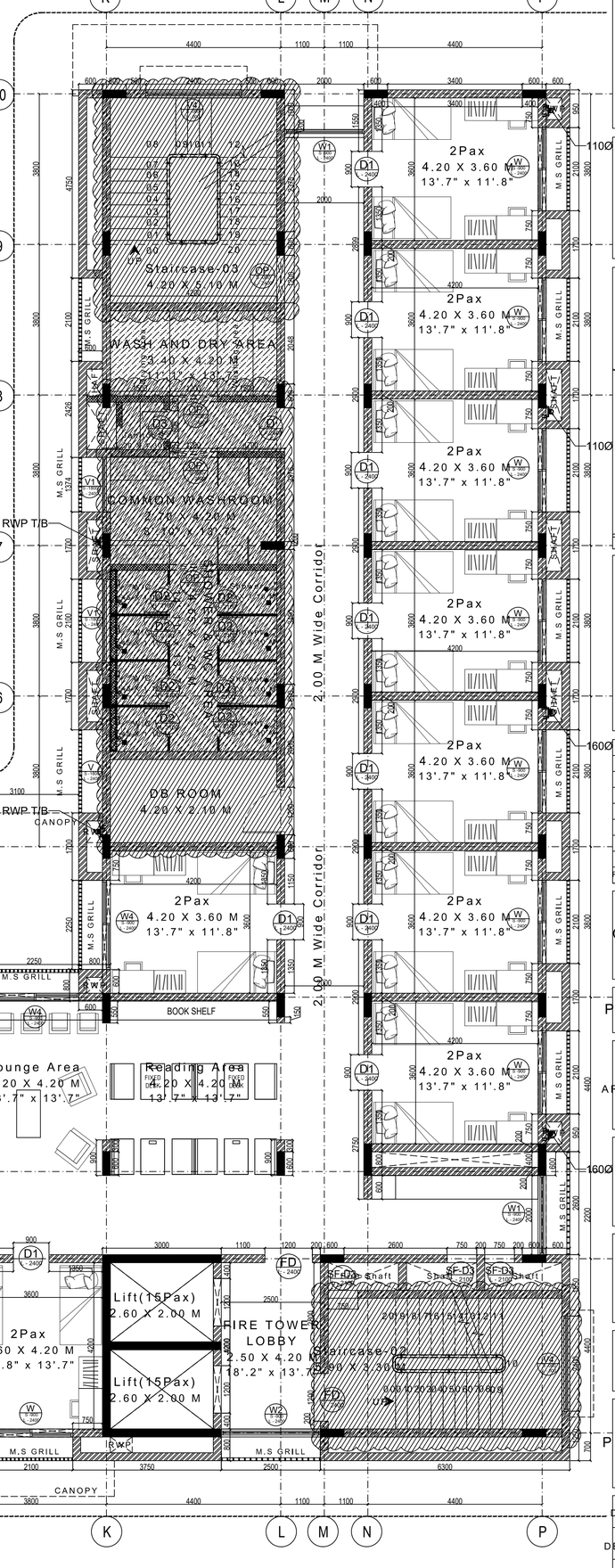
02 TY.DETAILS — TYPICAL HAND RAIL SECTION-A
SCALE 1:10



03 TY.DETAILS — TYPICAL SECTION-B
SCALE 1:20

FLOOR COLUMN DETAILS

NO	DESCRIPTION	COLOUR CODE
01	FLOOR TERMINATION COLUMN	



FthF BOYS HOSTELS — FIFTH FLOOR BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS

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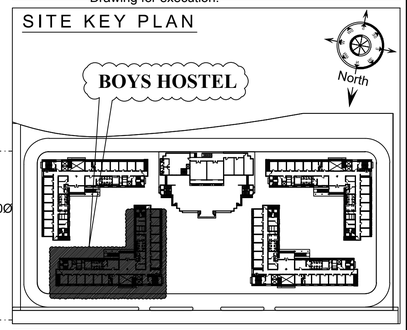
1. For Road and formation levels,refer Architectural Drawing
2. Refer Structural Drawing for Structural Design and Specification.
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Sign Drawing for execution.

SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
	15-09-2025	GOOD FOR CONSTRUCTION	RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

TITLE: Boys Hostels-FIFTH F BLOCK WORK LAYOUT

PURPOSE: FOR TENDER ONLY

DRAWN	RTR	JOB NO	--------
DESIGNED	---	SCALE	NTS@A1
APPROVED	---	DATE	23-12-2025

APPROVED DATE: 00-00-2025
DRG NO: BIT/TPIS/BW/Fifth/208
Rev: 0

DOORS SCHEDULE : (ALL FLOOR) (FLOOR LINTEL HEIGHT 2400MM)

NOTATION	DOOR SIZE		CIVIL OPEN.		BASIC		MATERIAL
	DOOR WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	LINTEL LEVEL	SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)

NOTATION	WINDOW SIZE		CIVIL OPEN.		BASIC		MATERIAL	
	WINDOW WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	LINTEL LEVEL	FRAMES	SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	---	---
W1	2.000	1.500	2.025	1.525	0.900	2.400	---	---
W2	2.500	1.500	2.525	1.525	0.900	2.400	---	---
W3	3.000	1.500	3.025	1.525	0.900	2.400	---	---
W4	2.250	1.500	2.275	1.525	0.900	2.400	---	---
V	2.100	0.600	2.125	0.625	1.800	2.400	---	---
V1	1.500	0.600	1.525	0.625	1.800	2.400	---	---
WL	1.000	1.500	1.025	0.525	0.900	2.400	---	---
V3	0.600	0.600	0.625	0.625	1.800	2.400	---	---
V4	2.400	0.600	2.425	0.625	---	---	---	---
V5	1.900	0.600	1.925	0.625	1.800	2.400	---	---
V6	0.900	0.600	0.925	0.625	1.800	2.400	---	---
FG	2.200	2.400	---	---	---	---	---	---
FG1	0.800	2.400	---	---	---	---	---	---
FG2	4.200	2.400	---	---	---	---	---	---
FG3	2.800	2.400	---	---	---	---	---	---

WALL HEIGHT LEGEND

NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

WALL TYPE LEGEND

NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

READ THIS DRAWING IN CONJUNCTION WITH
THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207

Note:
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY

Note:
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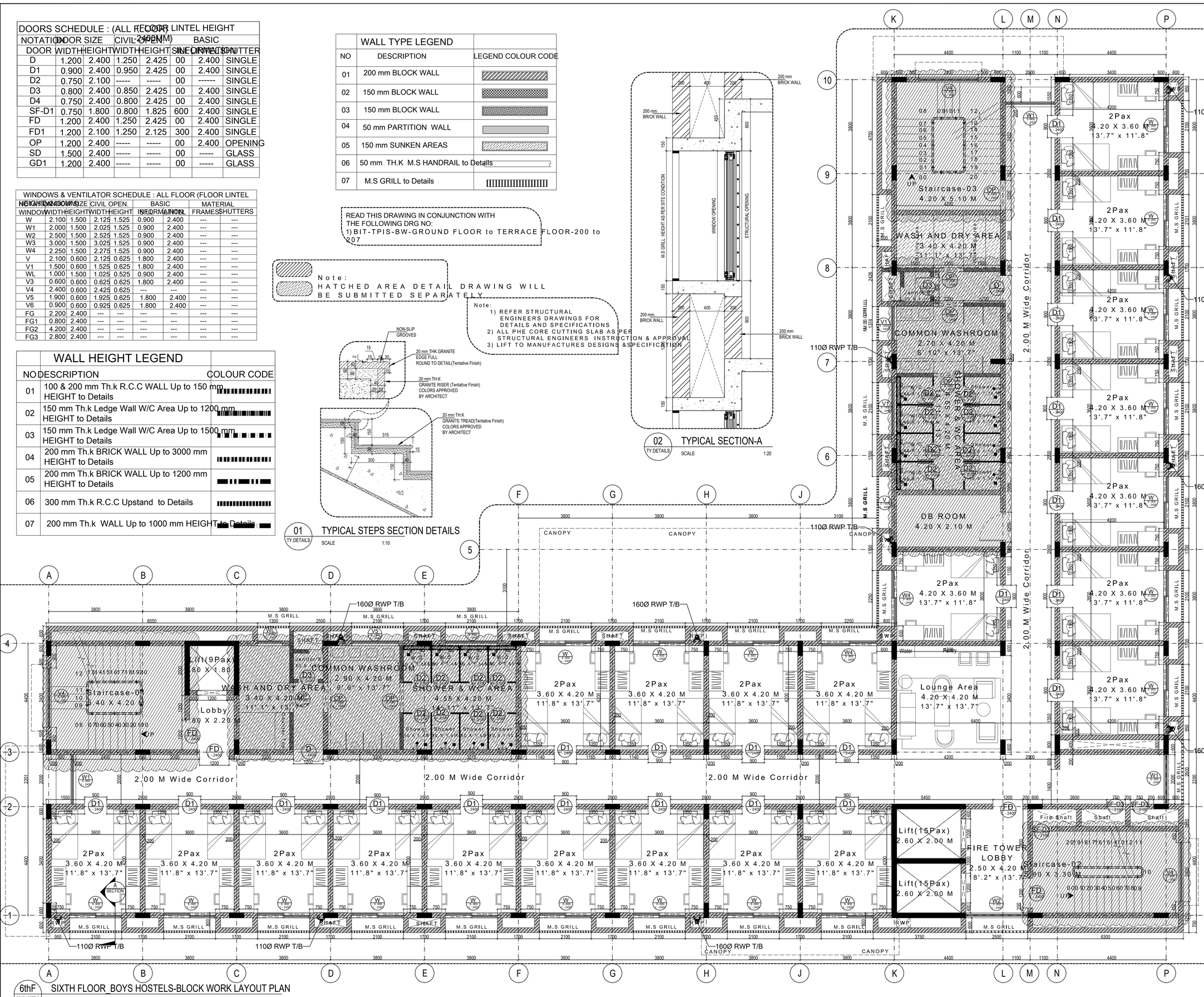
3) LIFT TO MANUFACTURES DESIGNS & SPECIFICATION

02 TY.DETAILS — TYPICAL SECTION-A
SCALE 1:20

01 TY.DETAILS — TYPICAL STEPS SECTION DETAILS
SCALE 1:10



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NOTE:

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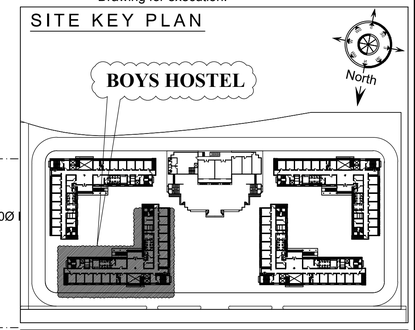
2. Refer Structural Drawing for Structural Design and Specification.
3. Refer Services Co- ordination Drawing for Electrical and Plumbing information.
4. Signages shown are indicative only. Refer Detailed Sign Drawing for execution.

SITE KEY PLAN



REV NO.	DATE	DESCRIPTION	BY
R0	15-09-2025		RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT

PHE ,FIRE & ELECTRICAL CONSULTANT

TITLE: Boys Hostels-SIXTH BLOCK WORK LAYOUT

PURPOSE: FOR TENDER ONLY

DRAWN	RTR	JOB NO	--------
DESIGNED	---	SCALE	NTS@A1
APPROVED	---	DATE	23-12-2025

APPROVED DATE: 00-00-2025

DRG NO: BIT/TPIS/BW/SixthF/200

Rev: R0

6thF BOYS HOSTELS — SIXTH FLOOR_BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS

DOORS SCHEDULE : (ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)							
NOTATION	DOOR SIZE		CIVIL OPEN.		BASIC		
DOOR	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	LINTEL	SHUTTER
D	1.200	2.400	1.250	2.425	00	2.400	SINGLE
D1	0.900	2.400	0.950	2.425	00	2.400	SINGLE
D2	0.750	2.100	-----	-----	00	------	SINGLE
D3	0.800	2.400	0.850	2.425	00	2.400	SINGLE
D4	0.750	2.400	0.800	2.425	00	2.400	SINGLE
SF-D1	0.750	1.800	0.800	1.825	600	2.400	SINGLE
FD	1.200	2.400	1.250	2.425	00	2.400	SINGLE
FD1	1.200	2.100	1.250	2.125	300	2.400	SINGLE
OP	1.200	2.400	-----	-----	00	2.400	OPENING
SD	1.500	2.400	-----	-----	00	-----	GLASS
GD1	1.200	2.400	-----	-----	00	-----	GLASS

WALL TYPE LEGEND		
NO	DESCRIPTION	LEGEND COLOUR CODE
01	200 mm BLOCK WALL	
02	150 mm BLOCK WALL	
03	150 mm BLOCK WALL	
04	50 mm PARTITION WALL	
05	150 mm SUNKEN AREAS	
06	50 mm TH.K M.S HANDRAIL to Details	
07	M.S GRILL to Details	

WINDOWS & VENTILATOR SCHEDULE : ALL FLOOR (FLOOR LINTEL HEIGHT 2400MM)							
NOTATION	WINDOWS SIZE		CIVIL OPEN.		BASIC		MATERIAL
WINDOW	WIDTH	HEIGHT	WIDTH	HEIGHT	SILL LEVEL	LINTEL	FRAMES / SHUTTERS
W	2.100	1.500	2.125	1.525	0.900	2.400	--- ---
W1	2.000	1.500	2.025	1.525	0.900	2.400	--- ---
W2	2.500	1.500	2.525	1.525	0.900	2.400	--- ---
W3	3.000	1.500	3.025	1.525	0.900	2.400	--- ---
W4	2.250	1.500	2.275	1.525	0.900	2.400	--- ---
V	2.100	0.600	2.125	0.625	1.800	2.400	--- ---
V1	1.500	0.600	1.525	0.625	1.800	2.400	--- ---
WL	1.000	1.500	1.025	0.525	0.900	2.400	--- ---
V3	0.600	0.600	0.625	0.625	1.800	2.400	--- ---
V4	2.400	0.600	2.425	0.625	---	---	--- ---
V5	1.900	0.600	1.925	0.625	1.800	2.400	--- ---
V6	0.900	0.600	0.925	0.625	1.800	2.400	--- ---
FG	2.200	2.400	---	---	---	---	--- ---
FG1	0.800	2.400	---	---	---	---	--- ---
FG2	4.200	2.400	---	---	---	---	--- ---
FG3	2.800	2.400	---	---	---	---	--- ---

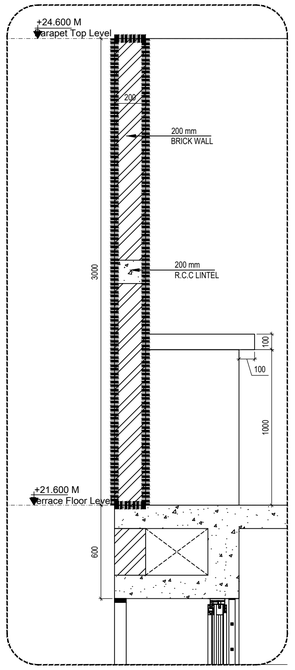
WALL HEIGHT LEGEND		
NO	DESCRIPTION	COLOUR CODE
01	100 & 200 mm Th.k R.C.C WALL Up to 150 mm HEIGHT to Details	
02	150 mm Th.k Ledge Wall W/C Area Up to 1200 mm HEIGHT to Details	
03	150 mm Th.k Ledge Wall W/C Area Up to 1500 mm HEIGHT to Details	
04	200 mm Th.k BRICK WALL Up to 3000 mm HEIGHT to Details	
05	200 mm Th.k BRICK WALL Up to 1200 mm HEIGHT to Details	
06	300 mm Th.k R.C.C Upstand to Details	
07	200 mm Th.k WALL Up to 1000 mm HEIGHT to Details	

Note:
1) REFER STRUCTURAL ENGINEERS DRAWINGS FOR DETAILS AND SPECIFICATIONS
2) ALL PHE CORE CUTTING SLAB AS PER STRUCTURAL ENGINEERS INSTRUCTION & APPROVAL
3) LIFT TO MANUFACTURES DESIGNS &SPECIFICATION

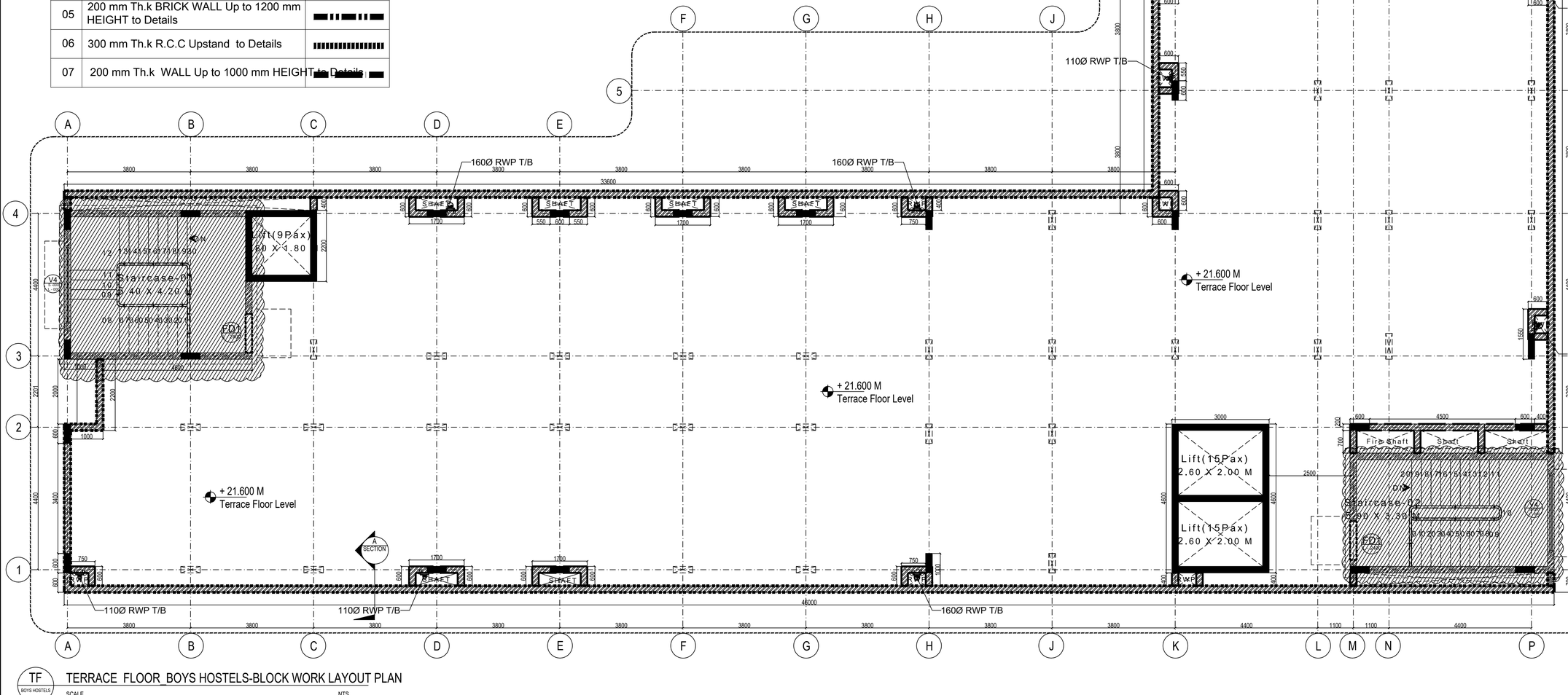
FLOOR COLUMN DETAILS		
NO	DESCRIPTION	COLOUR CODE
01	FLOOR TERMINATION COLUMN	

Note:
HATCHED AREA DETAIL DRAWING WILL BE SUBMITTED SEPARATELY

READ THIS DRAWING IN CONJUNCTION WITH THE FOLLOWING DRG NO:
1) BIT-TPIS-BW-GROUND FLOOR to TERRACE FLOOR-200 to 207



01 TY.DETAILS TYPICAL SECTION-A
SCALE 1:20



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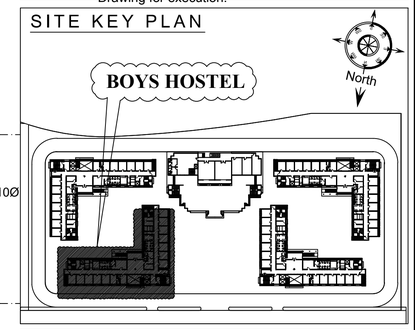
4. Signages shown are indicative only. Refer Detailed Sign Drawing for execution.

SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
R0	15-09-2025		RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT

PHE ,FIRE & ELECTRICAL CONSULTANT

TITLE: Boys Hostels-TERRAC BLOCK WORK LAYOUT

PURPOSE: FOR TENDER ONLY

DRAWN	RTR	JOB NO:	APPROVED DATE:	00-00-2025
DESIGNED	---	SCALE	NTS@A1	DRG NO BIT/TPIS/BW/Terrace/207 Rev
APPROVED	---	DATE		

TF BOYS HOSTELS
TERRACE FLOOR_BOYS HOSTELS-BLOCK WORK LAYOUT PLAN
SCALE NTS

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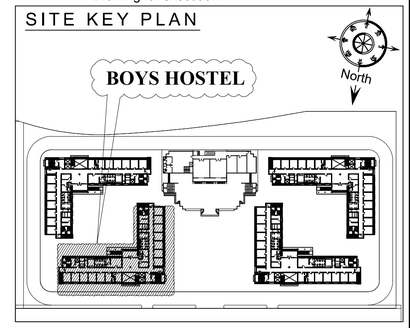
SITE KEY PLAN



REV NO	DATE	DESCRIPTION	BY
	15-09-2025		RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

TITLE: CAFE-GROUND FLOOR

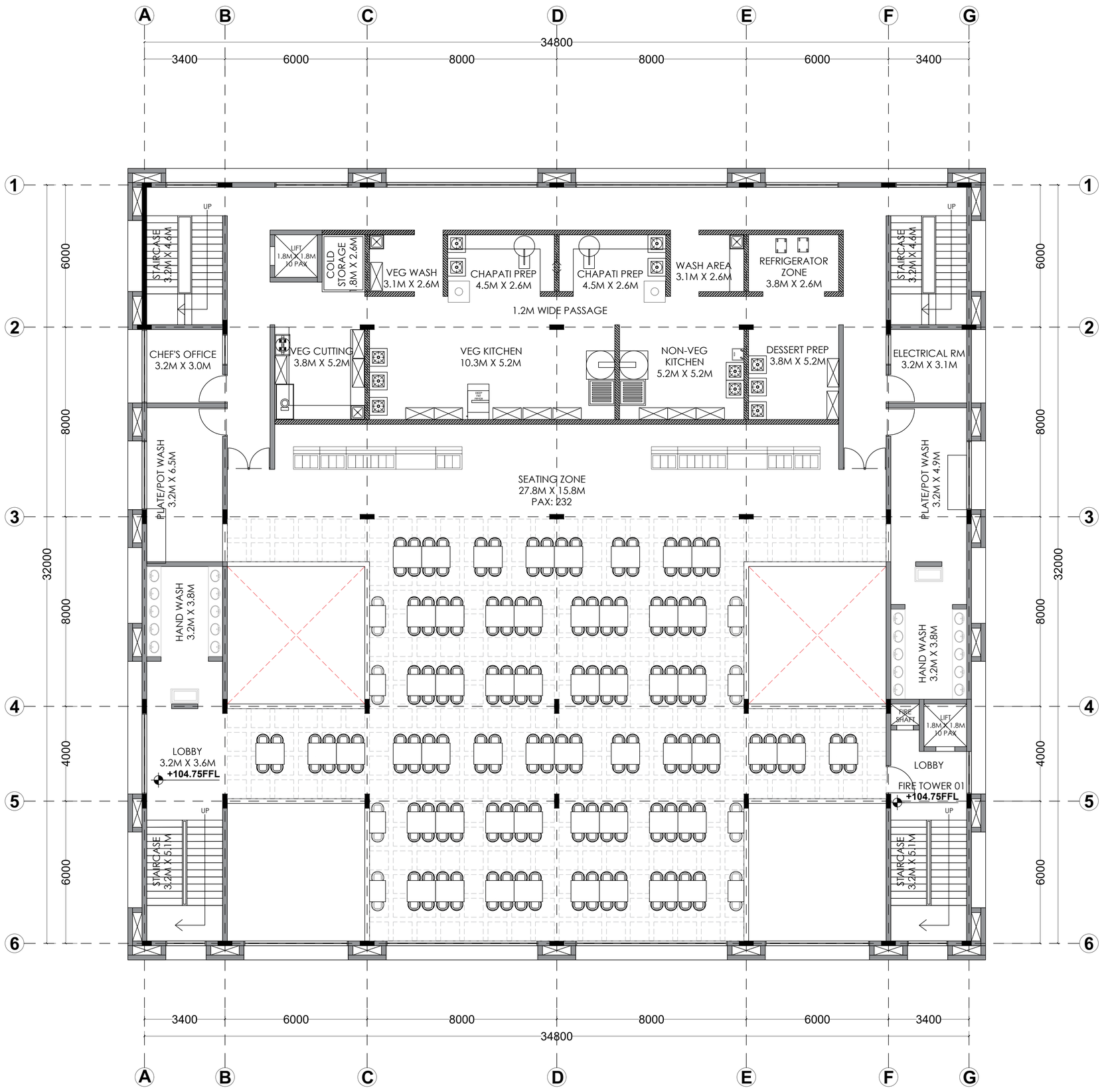
PURPOSE: FOR TENDER ONLY

DRAWN	RTR	JOB NO	--------
DESIGNED	---	SCALE	NTS@A1
APPROVED	---	DATE	

APPROVED DATE: 00-00-2025

DRG NO

Rev



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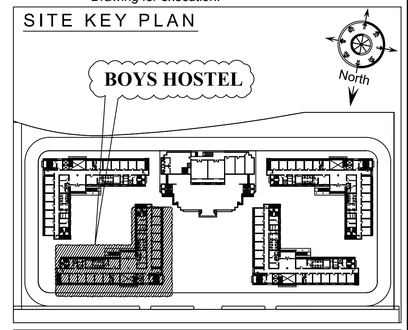
SITE KEY PLAN



REV NO.	DATE	DESCRIPTION	BY
	15-09-2025		RTR

CLIENT: Birla Institute of Technology, Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

TITLE: CAFE-FIRST FLOOR

PURPOSE: FOR TENDER ONLY

DRAWN RTR	JOB NO --------	APPROVED DATE:	00-00-2025
DESIGNED ---	SCALE NTS@A1	DRG NO	Rev
APPROVED ---	DATE 25-03-2025		

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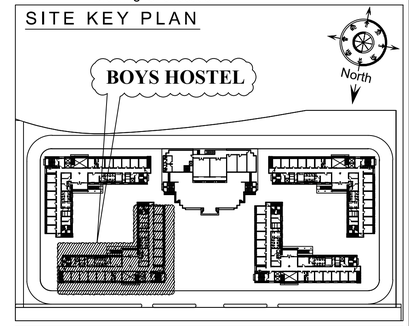
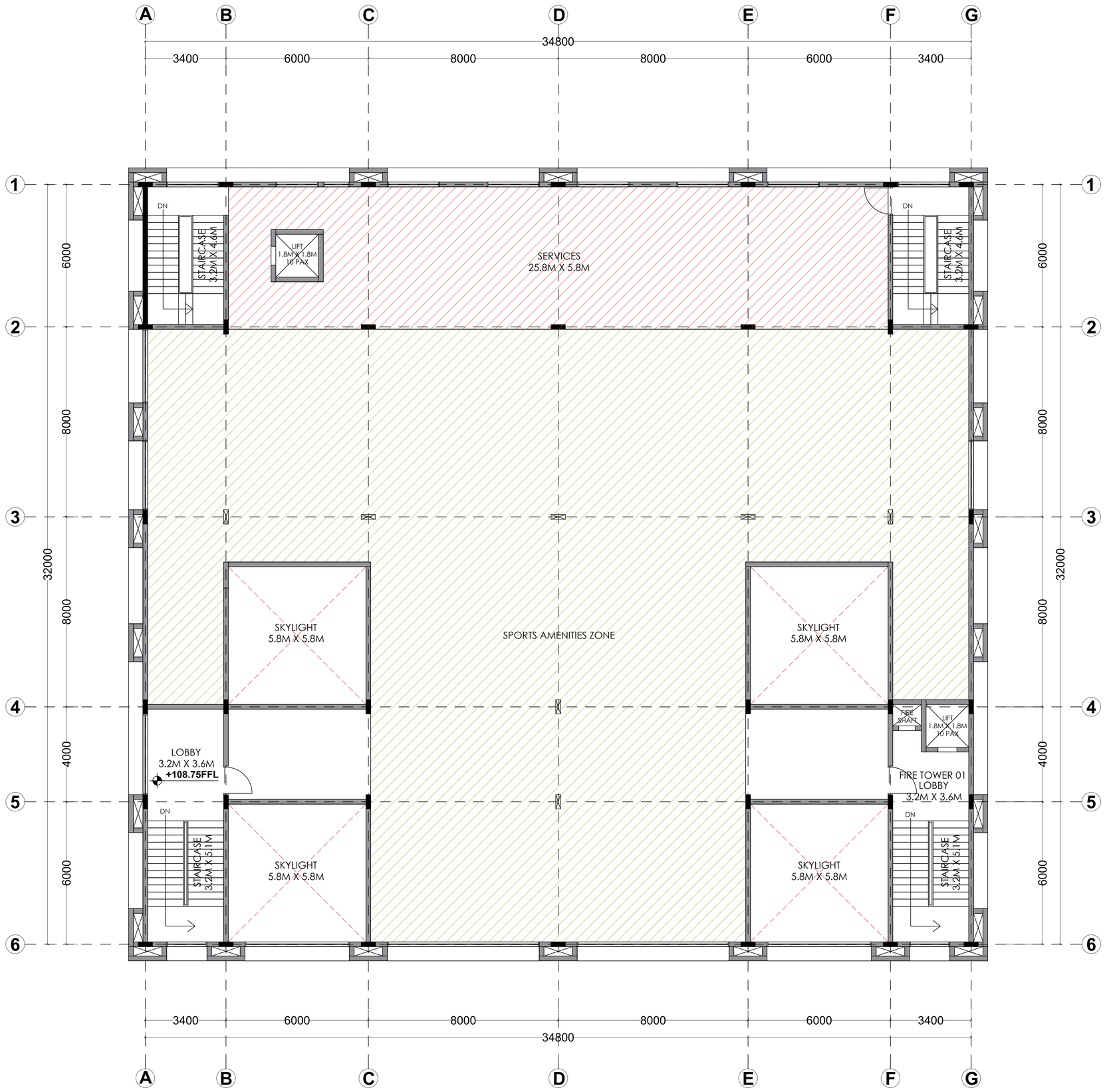
SITE KEY PLAN





REV NO	DATE	DESCRIPTION	BY
	15-09-2025		RTR

CLIENT: Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT: BOYS HOSTEL AT BIT MESRA

ARCHITECTS:

STRUCTURAL CONSULTANT:

PHE ,FIRE & ELECTRICAL CONSULTANT:

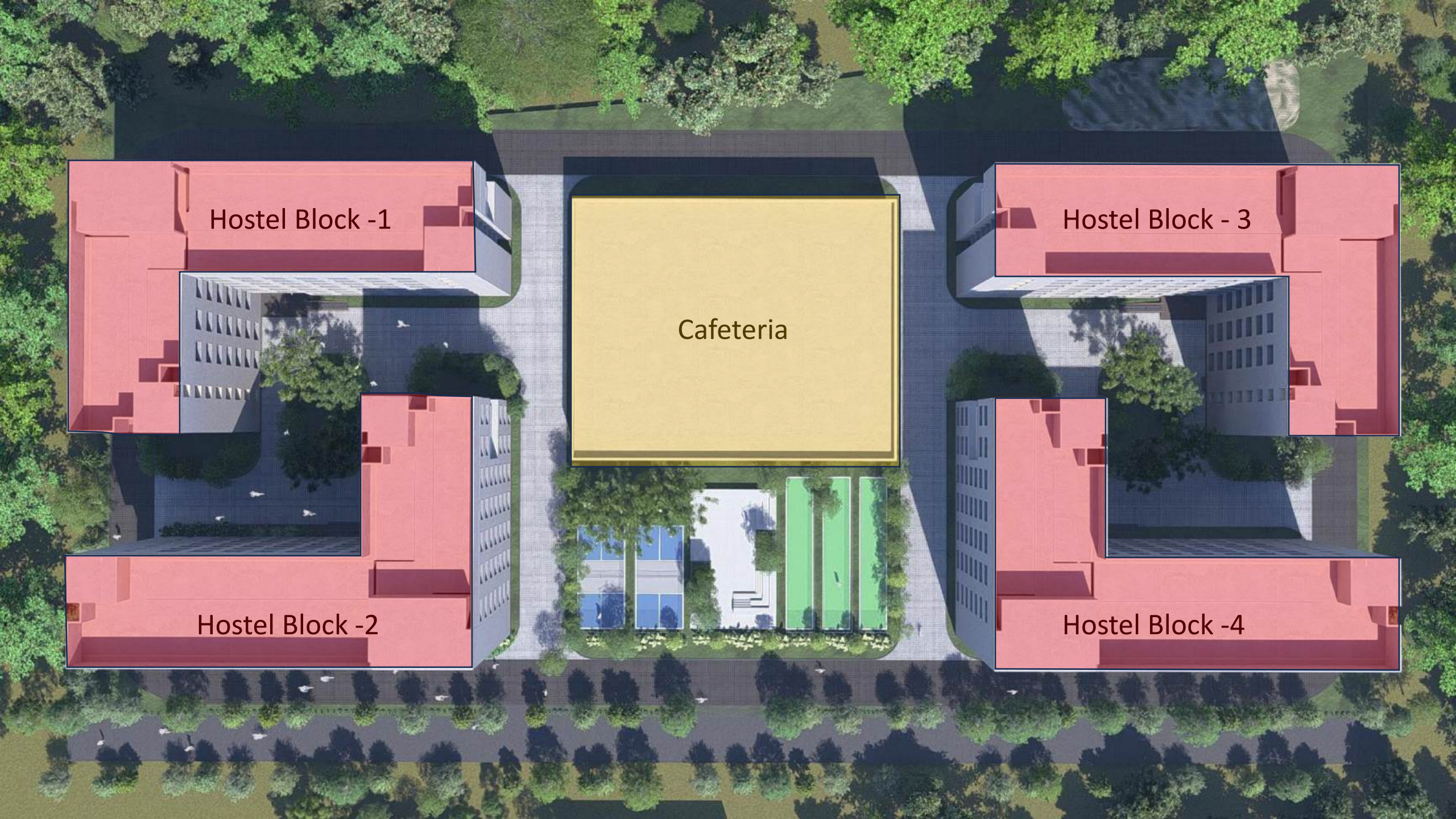
TITLE: CAFE-TERRACE FLOOR

PURPOSE: FOR TENDER ONLY

DRAWN	RTR	JOB NO	--------
DESIGNED	---	SCALE	NTS@A1
APPROVED	---	DATE	
APPROVED DATE:	00-00-2025		
DRG NO		Rev	

BIT HOSTEL RENDERS

EXTERIOR RENDERS


Hostel Block -1
Cafeteria
Hostel Block - 3
Hostel Block -2
Hostel Block -4

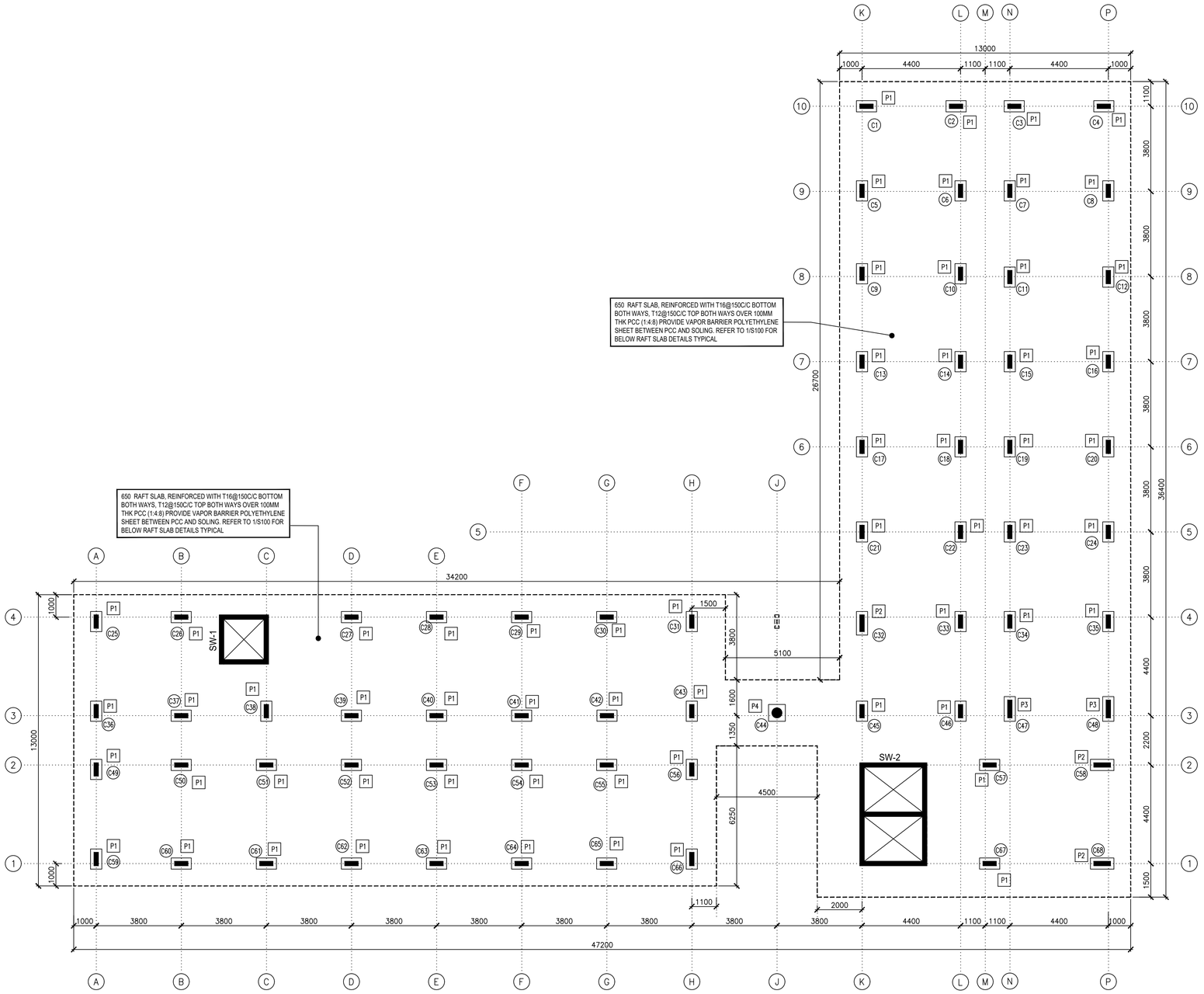
01

HOSTEL
01

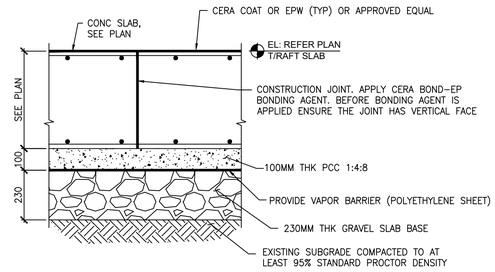
INDIVIDUAL ROOM RENDERS

2 PAX WITH COMMON WASHROOM

Structural drawing Set

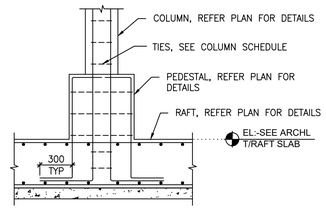


FOUNDATION PLAN
SCALE : 1:75
NORTH



PROVIDE PROPER COMPACTION AS PER GEOTECH REPORT.PLUMBING CONSULTANT TO ENSURE PROPER WATER DRAINAGE BELOW SLAB.

1/S100 TYPICAL RAFT SLAB DETAIL
SCALE : 1:10

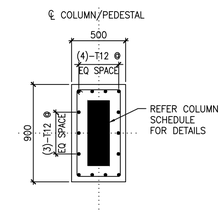


REFER TO 1/S100 FOR BELOW RAFT SLAB DETAILS

2/S100 COLUMN LAP DETAIL RESTING ON RAFT
SCALE : 1:20

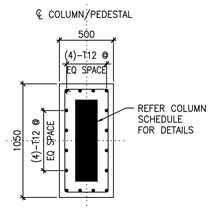
SCHEDULE OF PEDESTALS FOR FOOTINGS

SL NO.	PEDESTAL NO.	LENGTH (L1)	BREADTH (B1)	DEPTH (D1)	NO. OF BARS	TIES	REMARKS
01	P1	900	500	600	(14)-T12	T8@200C/C	REFER SECTION 3 TO 6/S100 FOR REINF DETAILS
02	P2	1050	500	600	(16)-T12	T8@200C/C	
03	P3	1100	500	600	(16)-T12	T8@200C/C	
04	P4	750	750	600	(16)-T12	T8@200C/C	



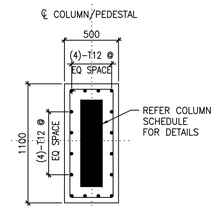
TOTAL NO OF BARS (14)-T12

3/S100 PEDESTAL P1 DETAIL
SCALE : 1:20



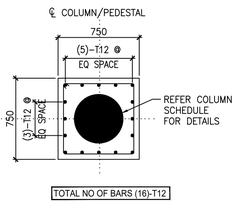
TOTAL NO OF BARS (16)-T12

4/S100 PEDESTAL P2 DETAIL
SCALE : 1:20



TOTAL NO OF BARS (16)-T12

5/S100 PEDESTAL P3 DETAIL
SCALE : 1:20



TOTAL NO OF BARS (16)-T12

6/S100 PEDESTAL P4 DETAIL
SCALE : 1:20

NOTE:
GRADE OF CONCRETE - M30
GRADE OF STEEL - Fe500

1. ALL COLUMNS,TO BE LOCATED AS PER THE ARCHITECTURAL CENTER LINE DRAWINGS
2. BOTTOM OF RAFT SHALL BE HOSTEL BLOCK 1&2 2000MM MINIMUM & HOSTEL BLOCK 3&4 3500MM MINIMUM BELOW FROM NATURAL GROUND LEVEL. U.N.O. WHERE ROCK IS ENCOUNTERED CONTACT STRUCTURAL CONSULTANT FOR RAFT ELEVATIONS

SHEET NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS ARE IN METERS UNO.
2. FOR ABBREVIATIONS REFER TO SHEET S001.
3. SEE S001 FOR GRADE OF CONCRETE, GRADE OF STEEL & NOMINAL COVER REQUIREMENTS.
4. READ THIS DRAWING WITH RELEVANT ARCHL & SERVICES DRAWINGS.
5. ALL RAFT AND PEDESTALS ARE CENTERED ON COLUMNS UNO. COLUMNS AND SHEARWALLS TO BE LOCATED PER THE ARCHITECTURAL CENTER LINE PLAN.
6. PROVIDE 100MM THICK PCC BELOW FOOTINGS.
7. COORDINATE TOP OF RAFT ELEVATION AT ELEVATOR CORE WITH PIT DEPTH AS REQUIRED BY ELEVATOR SUPPLIER. AND TO BE VERIFIED WITH ARCHL DWGS.

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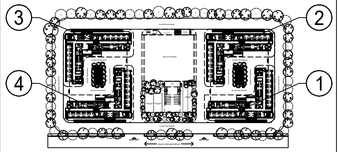
IT'S USE FOR ANY PURPOSE OTHER THAN INTENDED IS TO BE DONE WITH PRIOR APPROVAL IN WRITING.

DATE	DESCRIPTION	REV

LEGEND:

C#	COLUMN – REFER SHEET S200 & S201 FOR DETAILS
	RC COLUMN
SW-#	SHEARWALL – REFER SHEET S400 FOR DETAILS
P#	PEDESTAL – REFER SHEET S100 FOR DETAILS

KEY PLAN



PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	AS SHOWN

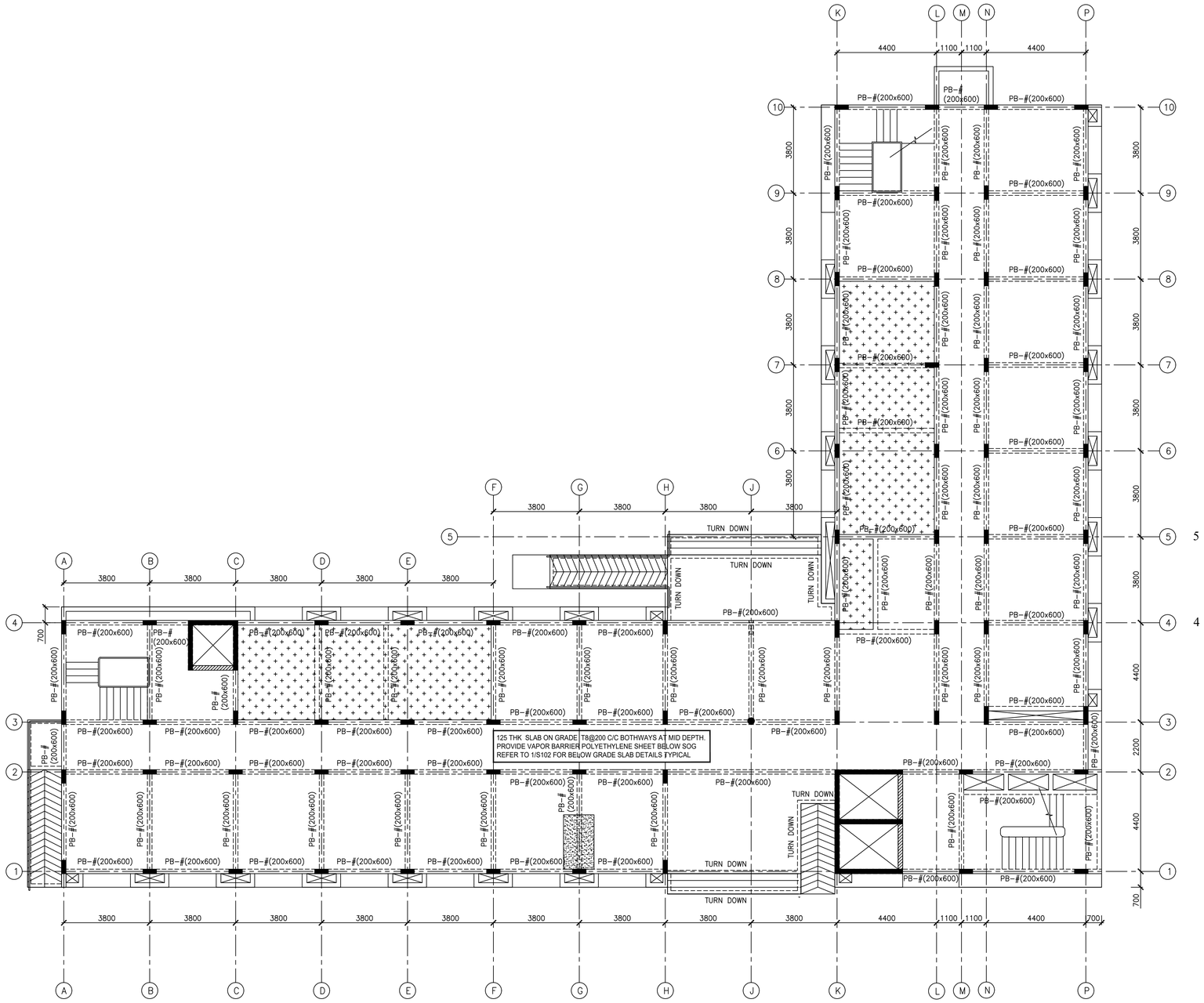
DRAWING TITLE

FOUNDATION PLAN & DETAILS

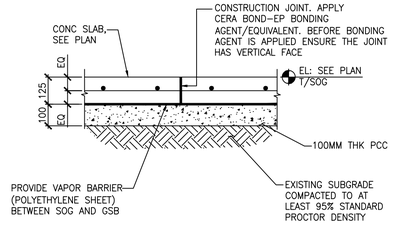
DRAWING NUMBER

S100

DATE :	REVISION : R0

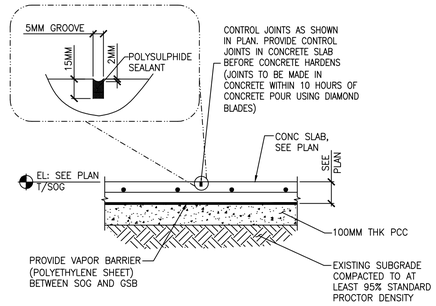


GROUND FLOOR FRAMING PLAN
SCALE : 1:75
NORTH

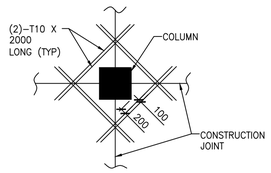


PROVIDE PROPER COMPACTION AS PER GEOTECH REPORT.
PLUMBING CONSULTANT TO ENSURE PROPER WATER DRAINAGE BELOW SLAB.

TYPICAL GRADE SLAB CONSTRUCTION JOINT DETAIL
1/S102 SCALE : 1:10



SECTION AT CONTROL JOINT
2/S102 SCALE : 1:10



BAR PLACEMENT DETAIL IN GRADE SLAB AROUND COLUMN
3/S102 SCALE : 1:75

NOTE:
1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:	
	RC WALL/COLUMN BELOW
	RC WALL/ COLUMN
	TOILET SLAB SUNK BY ###MM
	RC UPSTAND
PB–#	PLINTH BEAM REFER S300 SERIES FOR BEAM SCHEDULES
TOB	TOP OF BEAM
TOW	TOP OF WALL

SLAB ON GRADE NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS ARE IN METERS UNO. DO NOT SCALE FROM THE DRAWINGS. ANY DISCREPANCY TO BE BROUGHT TO THE NOTICE OF STRUCTURAL CONSULTANT.
2. FOR ABBREVIATIONS REFER TO SHEET S001.
3. SEE S001 FOR GRADE OF CONCRETE, GRADE OF STEEL & NOMINAL COVER REQUIREMENTS.
4. READ THIS DRAWING WITH RELEVANT ARCHL & SERVICES DRAWINGS.
5. SLAB–ON–GRADE SHALL BE 150THK SLAB. REFER TO #/S### FOR DETAILS.
6. ALL THE MASONRY WALLS RESTING ON GRADE SHALL BE PROVIDED WITH THICKENED SLAB AS PER DETAIL 9/S002.
7. ALL CUTOUTS/SLEEVES SIZE & LOCATION TO BE COORDINATED WITH ARCHITECTURAL/SERVICE DRAWINGS.

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IT'S USE FOR ANY PURPOSE OTHER THAN INTENDED IS TO BE DONE WITH PRIOR APPROVAL IN WRITING.

DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

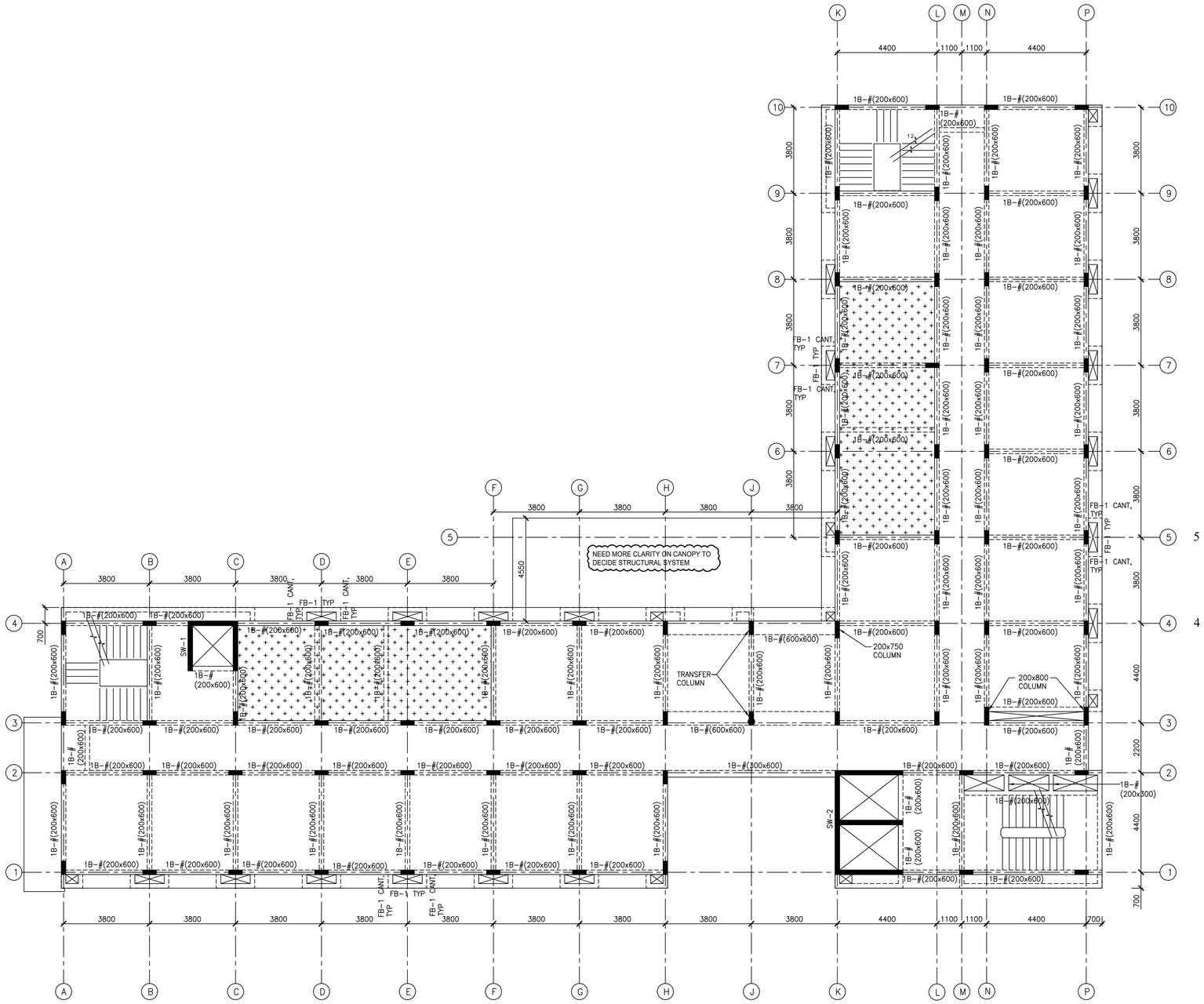
DRAWING TITLE

GROUND FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S102

DATE :	REVISION : R0



FIRST FLOOR FRAMING PLAN
SCALE : 1:75
ALL SLABS ARE 150 THK U.N.O

NORTH

ALL COLUMNS ARE 200x600 TYP, U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:
1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:

	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
1B–#	1ST FLOOR BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB–#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
4. VERIFY ALL DIMENSIONS & OPENING SIZE WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. DIFFERENCES IF ANY NEEDS TO BE BROUGHT TO THE ATTENTION OF PROJECT MANAGER AND SHOULD BE RESOLVED BEFORE COMMENCEMENT OF WORK.
5. THE LOCATIONS, DIMENSIONS AND TOTAL WEIGHT OF MECHANICAL EQUIPMENTS PROVIDED IN THE STRUCTURAL DRAWING HAS TO BE VERIFIED WITH THE SERVICE CONSULTANT'S DRAWING. DISCREPANCIES OR DIFFERENCES IF ANY HAS TO BE BROUGHT TO THE KNOWLEDGE OF STRUCTURAL CONSULTANTS BEFORE COMMENCEMENT OF WORK.

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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

DRAWING TITLE

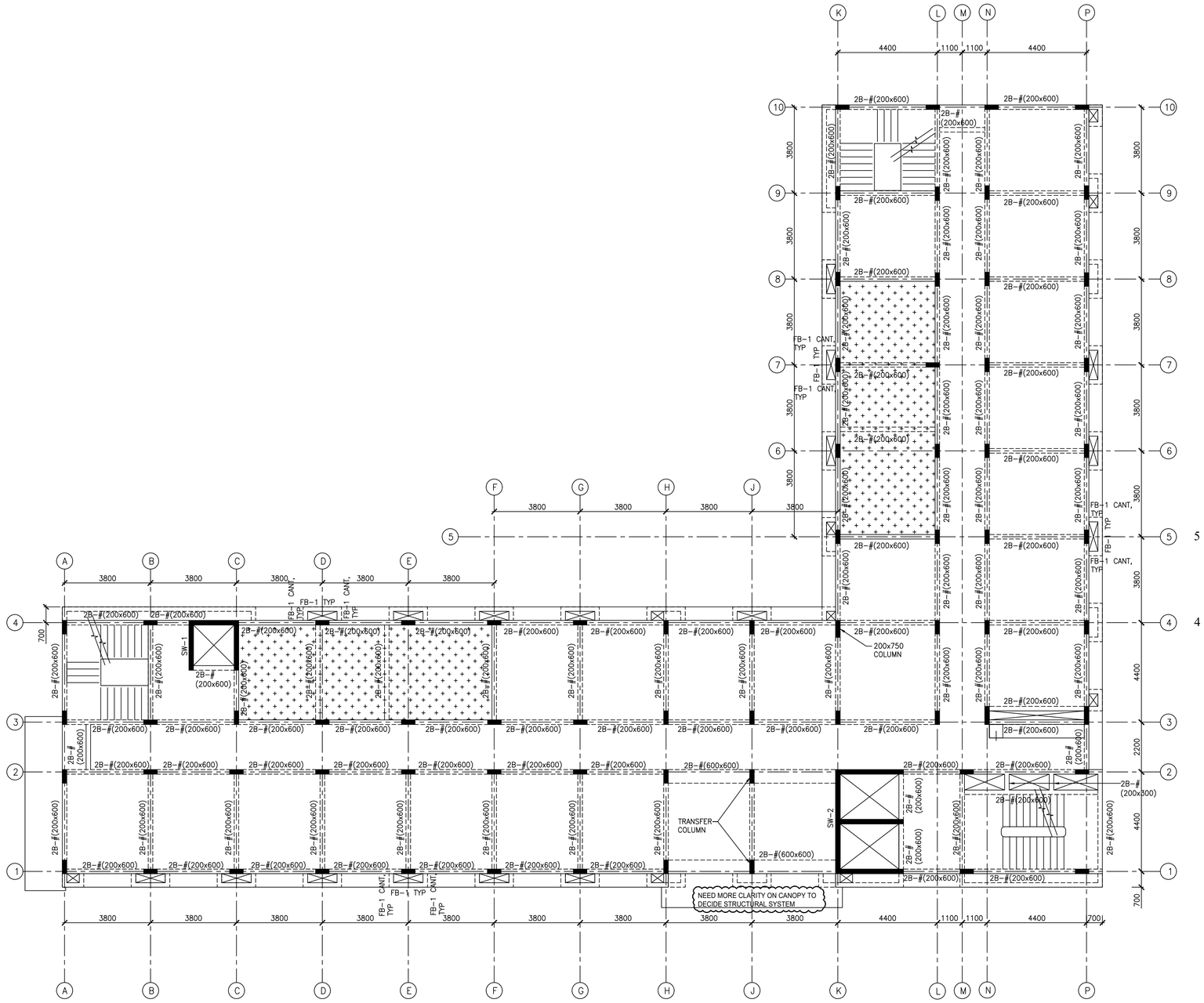
FIRST FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S103

DATE :

REVISION : R0



SECOND FLOOR FRAMING PLAN

SCALE : 1:75

NORTH

ALL SLABS ARE 150 THK U.N.O

ALL COLUMNS ARE 200x600 TYP, U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:

1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:

	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
2B–#	2ND FLOOR BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB–#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
4. VERIFY ALL DIMENSIONS & OPENING SIZE WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. DIFFERENCES IF ANY NEEDS TO BE BROUGHT TO THE ATTENTION OF PROJECT MANAGER AND SHOULD BE RESOLVED BEFORE COMMENCEMENT OF WORK.
5. THE LOCATIONS, DIMENSIONS AND TOTAL WEIGHT OF MECHANICAL EQUIPMENTS PROVIDED IN THE STRUCTURAL DRAWING HAS TO BE VERIFIED WITH THE SERVICE CONSULTANT'S DRAWING. DISCREPANCIES OR DIFFERENCES IF ANY HAS TO BE BROUGHT TO THE KNOWLEDGE OF STRUCTURAL CONSULTANTS BEFORE COMMENCEMENT OF WORK.

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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

DRAWING TITLE

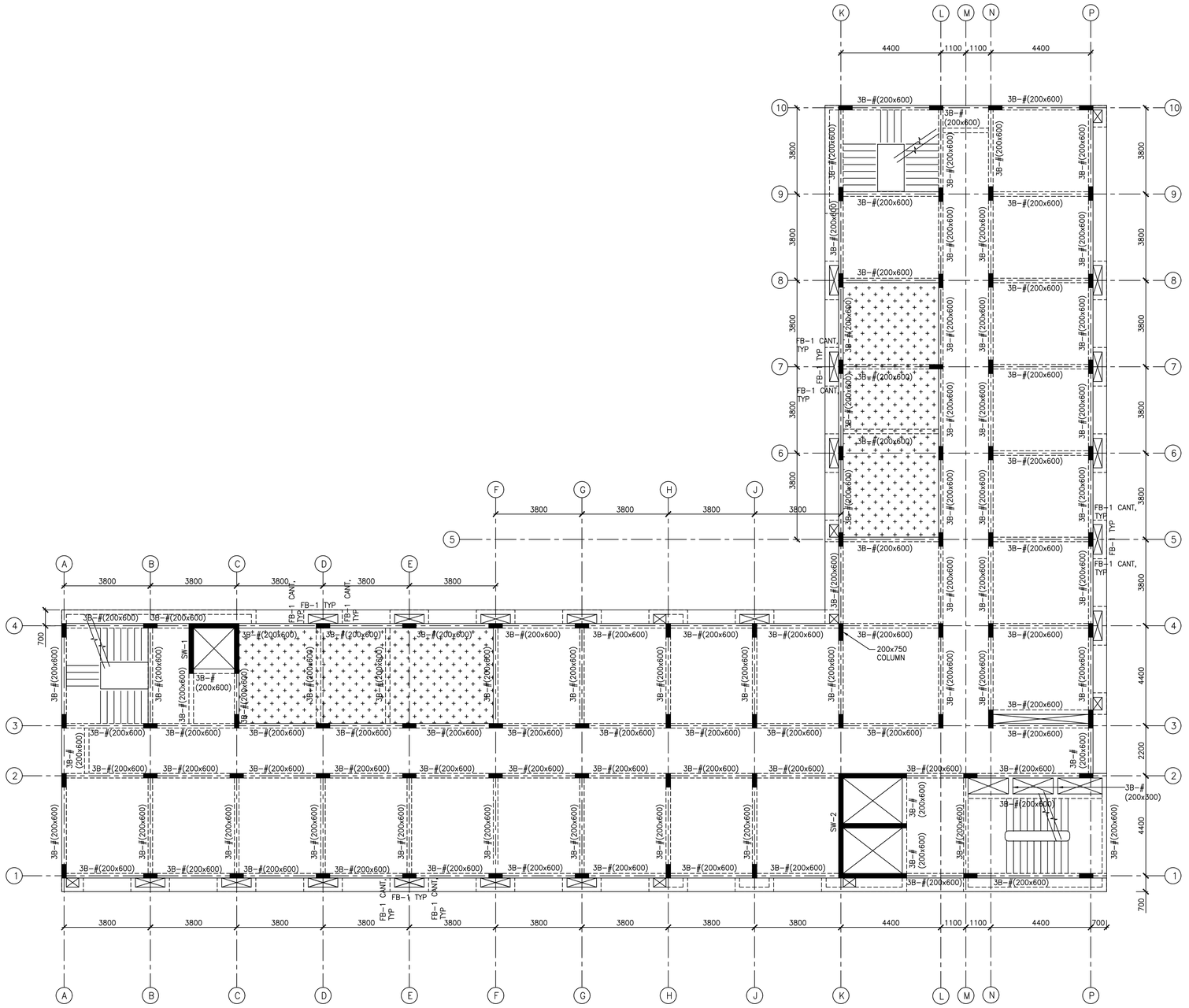
SECOND FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S104

DATE :

REVISION : R0



THIRD FLOOR FRAMING PLAN

SCALE : 1:75

NORTH

ALL SLABS ARE 150 THK U.N.O

ALL COLUMNS ARE 200x600 TYP, U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:

1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:

	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
3B–#	3RD FLOOR BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB–#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
4. VERIFY ALL DIMENSIONS & OPENING SIZE WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. DIFFERENCES IF ANY NEEDS TO BE BROUGHT TO THE ATTENTION OF PROJECT MANAGER AND SHOULD BE RESOLVED BEFORE COMMENCEMENT OF WORK.
5. THE LOCATIONS, DIMENSIONS AND TOTAL WEIGHT OF MECHANICAL EQUIPMENTS PROVIDED IN THE STRUCTURAL DRAWING HAS TO BE VERIFIED WITH THE SERVICE CONSULTANT'S DRAWING. DISCREPANCIES OR DIFFERENCES IF ANY HAS TO BE BROUGHT TO THE KNOWLEDGE OF STRUCTURAL CONSULTANTS BEFORE COMMENCEMENT OF WORK.

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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

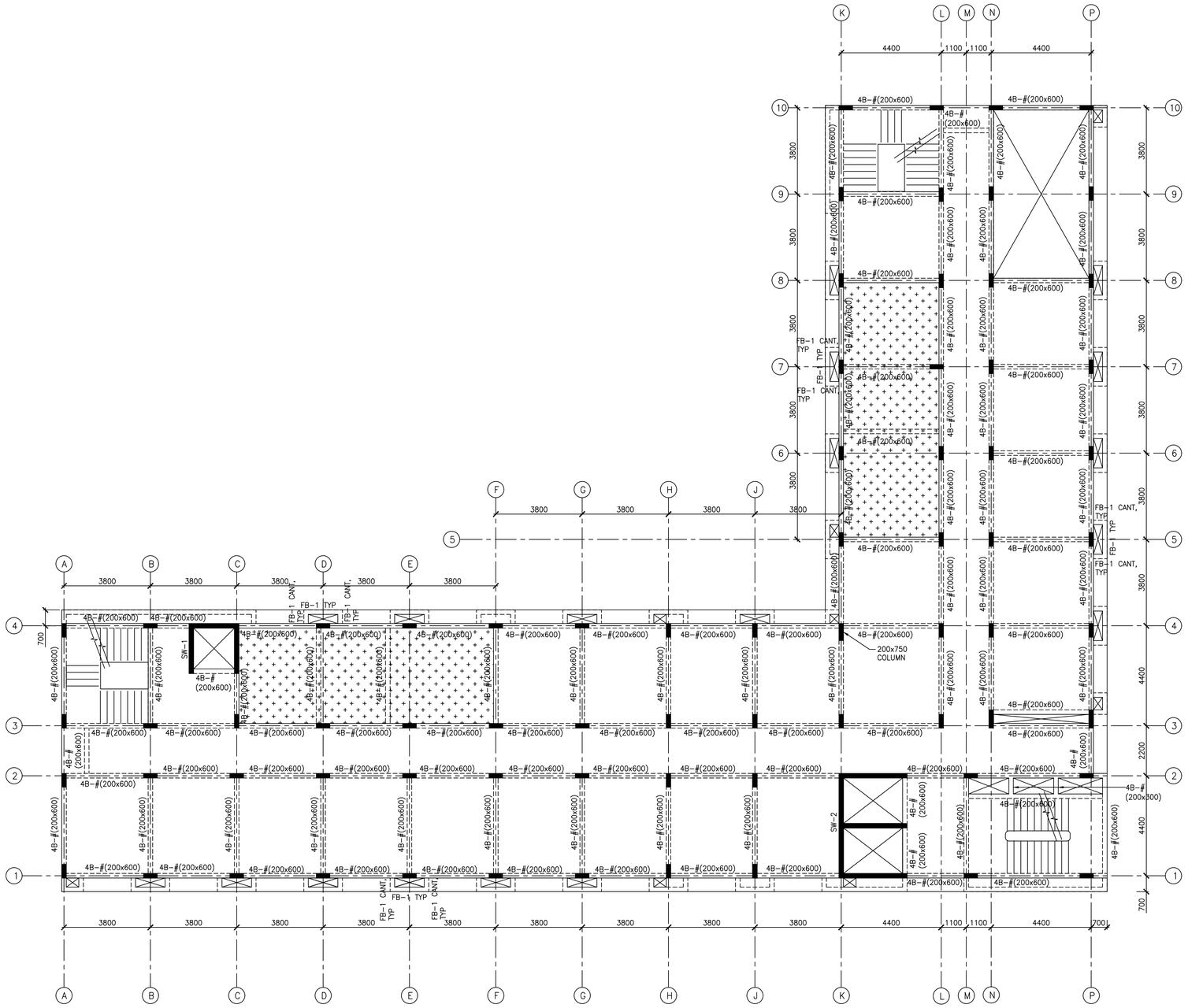
DRAWING TITLE

THIRD FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S105

DATE :	REVISION : R0



FOURTH FLOOR FRAMING PLAN

SCALE : 1:75

NORTH

ALL SLABS ARE 150 THK U.N.O

ALL COLUMNS ARE 200x600 TYP. U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:

1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:

	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
4B–#	4TH FLOOR BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB–#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
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5. THE LOCATIONS, DIMENSIONS AND TOTAL WEIGHT OF MECHANICAL EQUIPMENTS PROVIDED IN THE STRUCTURAL DRAWING HAS TO BE VERIFIED WITH THE SERVICE CONSULTANT'S DRAWING. DISCREPANCIES OR DIFFERENCES IF ANY HAS TO BE BROUGHT TO THE KNOWLEDGE OF STRUCTURAL CONSULTANTS BEFORE COMMENCEMENT OF WORK.

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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

DRAWING TITLE

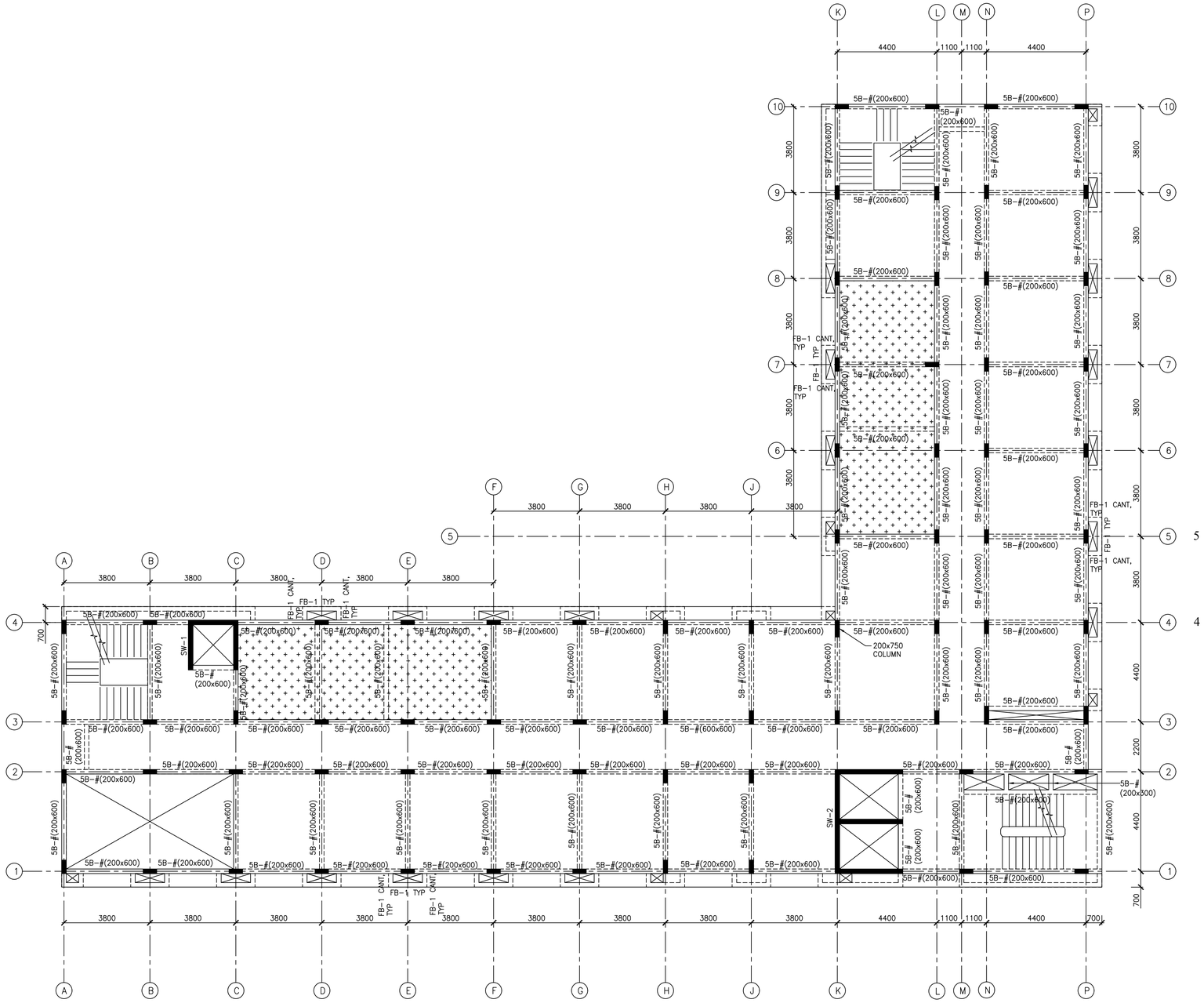
FOURTH FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S106

DATE :

REVISION : R0



FIFTH FLOOR FRAMING PLAN

SCALE : 1:75

NORTH

ALL SLABS ARE 150 THK U.N.O

ALL COLUMNS ARE 200x600 TYP, U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:

1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:

	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
5B–#	5TH FLOOR BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB–#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

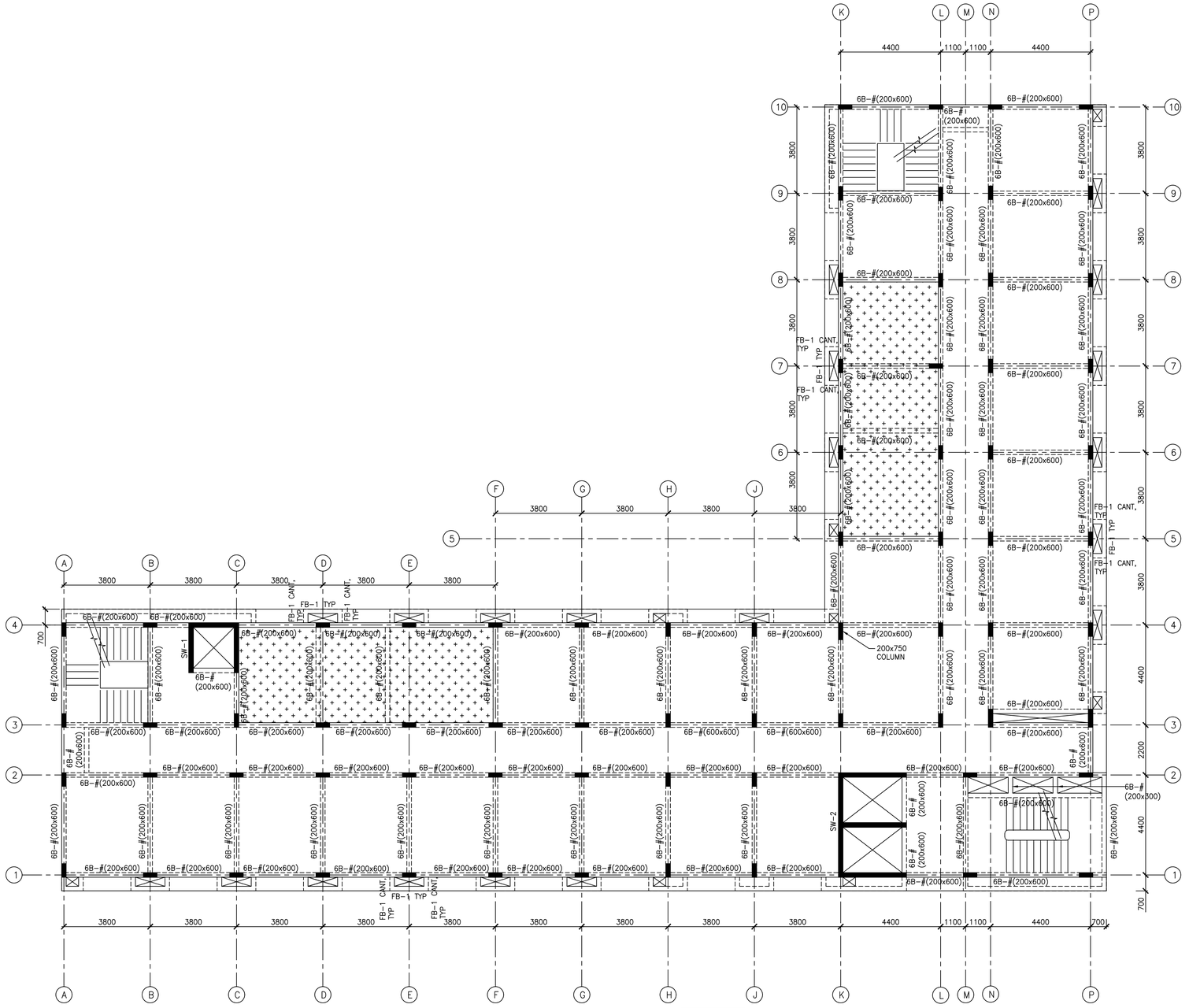
DRAWING TITLE

FIFTH FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S107

DATE :	REVISION : R0



SIXTH FLOOR FRAMING PLAN
SCALE : 1:75
NORTH

ALL SLABS ARE 150 THK U.N.O

ALL COLUMNS ARE 200x600 TYP, U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:
1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:	
	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
6B–#	6TH FLOOR BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB–#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
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5. THE LOCATIONS, DIMENSIONS AND TOTAL WEIGHT OF MECHANICAL EQUIPMENTS PROVIDED IN THE STRUCTURAL DRAWING HAS TO BE VERIFIED WITH THE SERVICE CONSULTANT'S DRAWING. DISCREPANCIES OR DIFFERENCES IF ANY HAS TO BE BROUGHT TO THE KNOWLEDGE OF STRUCTURAL CONSULTANTS BEFORE COMMENCEMENT OF WORK.

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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

DRAWING TITLE

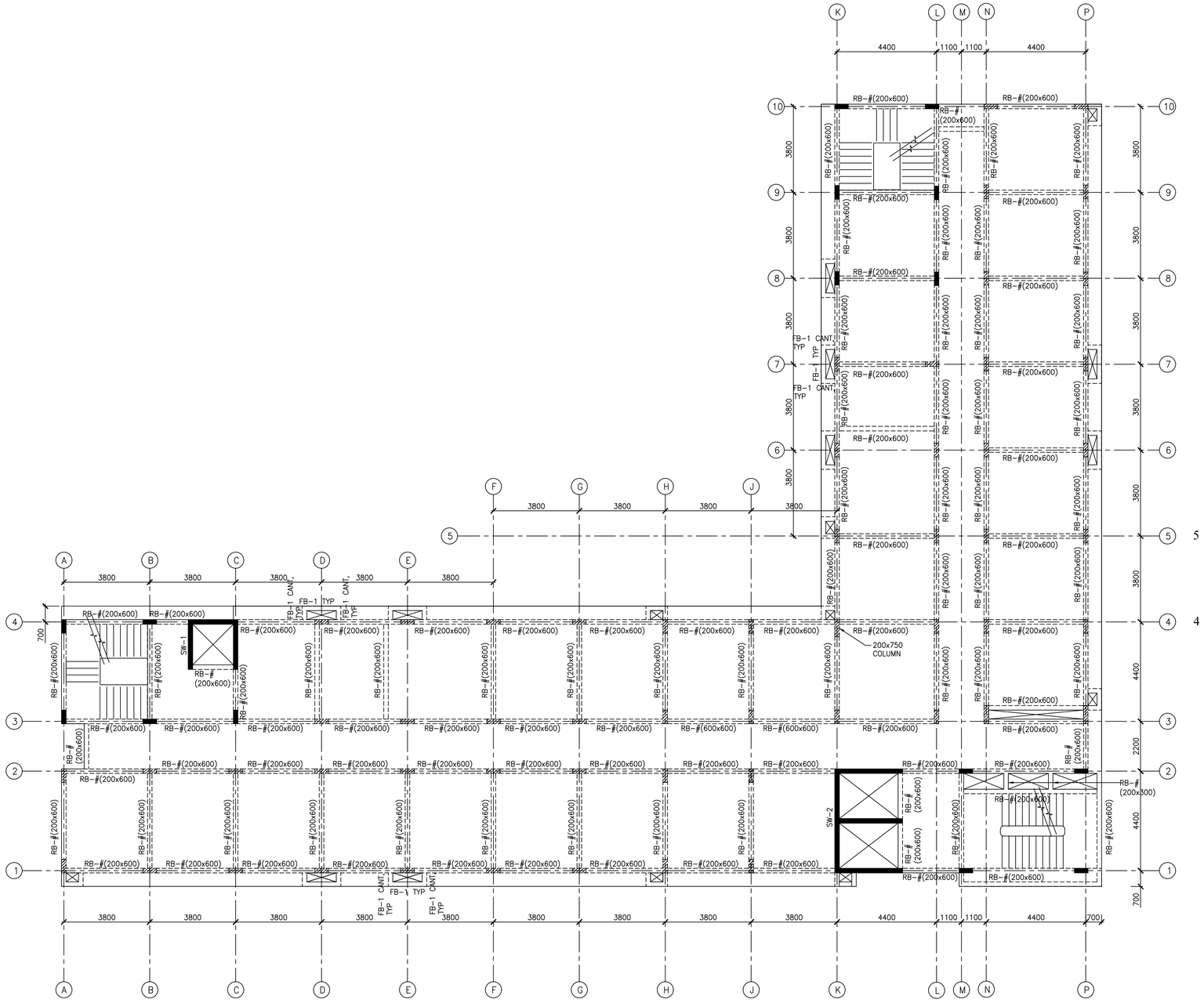
SIXTH FLOOR FRAMING PLAN & DETAILS

DRAWING NUMBER

S108

DATE :

REVISION : R0



TERRACE FRAMING PLAN

SCALE : 1:75

NORTH

ALL SLABS ARE 150 THK U.N.O

ALL COLUMNS ARE 200x600 TYP, U.N.O
ALL FACIA BEAMS FB-1 & FB-1 CANT ARE 200x450 TYP

NOTE:

1. ALL CUTOUT SIZE AND LOCATION TO BE VERIFIED AS PER ARCH'L/SERVICE DRAWINGS. ANY DISCREPANCY WITH STRUCTURAL MEMBERS TO BE NOTIFIED TO STRUCTURAL CONSULTANT
2. DOWELS SHOULD BE PROVIDED WHERE EVER NECESSARY AS PER SITE REQUIREMENT
3. FOR SHEAR WALL REINFORCEMENT DETAILS REFER S400 SERIES TYPICAL UNO

LEGEND:

	RC WALL/ COLUMN
	TOILET SLAB SUNK BY 200MM
	RC UPSTAND
TB-#	TERRACE BEAM REFER S300 SERIES FOR BEAM SCHEDULES
FB-#	FIN BEAM REFER S### FOR BEAM DETAILS
TOB	TOP OF BEAM
TOW	TOP OF WALL

SHUTTERING NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL ELEVATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. DO NOT SCALE OFF FROM THE DRAWINGS.
3. NO CUTTING OR DRILLING OF THE POURED CONCRETE OR REINFORCEMENT SHALL BE ALLOWED UNLESS APPROVED BY THE PROJECT MANAGER/STRUCTURAL CONSULTANTS.
4. VERIFY ALL DIMENSIONS & OPENING SIZE WITH ARCHITECTURAL DRAWINGS BEFORE COMMENCING CONSTRUCTION. DIFFERENCES IF ANY NEEDS TO BE BROUGHT TO THE ATTENTION OF PROJECT MANAGER AND SHOULD BE RESOLVED BEFORE COMMENCEMENT OF WORK.
5. THE LOCATIONS, DIMENSIONS AND TOTAL WEIGHT OF MECHANICAL EQUIPMENTS PROVIDED IN THE STRUCTURAL DRAWING HAS TO BE VERIFIED WITH THE SERVICE CONSULTANT'S DRAWING. DISCREPANCIES OR DIFFERENCES IF ANY HAS TO BE BROUGHT TO THE KNOWLEDGE OF STRUCTURAL CONSULTANTS BEFORE COMMENCEMENT OF WORK.

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DATE	DESCRIPTION	REV

KEY PLAN

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PROPOSED HOSTEL BLOCK
FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

DRAWING TITLE

TERRACE FRAMING PLAN & DETAILS

DRAWING NUMBER

S109

DATE :	REVISION : R0

1. GENERAL :

1.1 ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS.

1.2 DIMENSIONS SHALL NOT BE SCALED OFF FROM THE DRAWING.

1.3 THE WORK SHALL BE IN ACCORDANCE WITH IS:456–2000 AND RELEVANT BIS CODES AND TECHNICAL SPECIFICATIONS.

1.4 STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. REFER THESE DRAWINGS FOR DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

1.5 DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

1.6 THE STRUCTURE IS DESIGNED TO BE SELF–SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE DOWNS.

2. CONTRACTOR PROPOSED CHANGES AND SUBSTITUTIONS :

2.1 PROPOSED CHANGES OR SUBSTITUTIONS TO STRUCTURAL DETAILS OR PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD (EOR) FOR REVIEW AND APPROVAL. SUBMITTALS SHALL CONTAIN FULL DOCUMENTATION OF CHANGES OR SUBSTITUTIONS WITH SUPPORTING, SEALED CALCULATIONS (WHERE APPLICABLE). CONSTRUCTION COST REVISIONS ARE BETWEEN THE CONTRACTOR AND OWNER AND ARE NOT REVIEWED BY THE EOR.

3. DESIGN LOADS :

3.1 THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE NATIONAL BUILDING CODE (NBC) EDITION.

3.2 LIVE LOADS ARE BASED ON IS:875 PART II: UNIFORM

(a)	LIVING & BEDROOMS	: 2 KN/SQ M
(b)	TOILET	: 2 KN/SQ M
(c)	LIFT MACHINE ROOM	: 10 KN/SQ M
(d)	CORRIDORS,PASSAGES,LOBBIES & STAIR	: 3 KN/SQ M
(e)	LIFT,GENERATOR ROOMS,MECHANICAL/ ELECTRICAL ROOMS	: EQUIPMENT LOADS AS PER SUPPLIERS DATA
(f)	TERRACES	: 1.5 KN/SQ M (ACCESSIBLE)

3.3 WIND LOADS ARE BASED ON IS:875 PART III:

(a) BASIC WIND SPEED = 33.0 M/SEC. (LOCATION–BENGALURU)
(b) RISK CO–EFFICIENT k1 = 1.0 (TABLE 1–MEAN PROBABLE DESIGN LIFE 50 YEARS)
(c) TERRAIN, HEIGHT & STRUCTURAL SIZE FACTOR, k2 = 1.14 (FROM TABLE 2 FOR CLASS B)
(d) TOPOGRAPHY FACTOR k3 : 1.0
(e) IMPORTANCE FACT k4 : 1.0

3.4 SEISMIC LOAD IS BASED ON IS:1893–2016.
(a) ZONE = II
(b) ZONE FACTOR = 0.10
(c) IMPORTANCE FACTOR = 1.2
(d) RESPONSE REDUCTION CO–EFFICIENT = 3.0 (ORDINARY RC WALL SYSTEM)

3.5 STANDARDS AND CODE OF PRACTICE(LATEST REVISIONS OF THE CODES SHALL BE USED) :
(a) IS:456 – CODE OF PRACTICE FOR PLAIN AND REINFORCED CONCRETE.
(b) IS:875 (PART–I to IV) CODE OF PRACTICE FOR DESIGN LOADS.
(c) IS:800–CODE OF PRACTICE FOR GENERAL CONSTRUCTION IN STEEL.
(d) IS:806 CODE OF PRACTICE FOR USE OF STEEL TUBES IN GENERAL BUILDING CONSTRUCTION.
(e) IS:816 CODE OF PRACTICE FOR USE OF METAL ARC WELDING FOR GENERAL CONSTRUCTION IN MILD STEEL.
(f) IS:786 SPECIFICATIONS FOR HIGH STRENGTH DEFORMED STEEL BARS & WIRES FOR CONCRETE REINFORCEMENT.
(g) IS:2502 CODE OF PRACTICE FOR BENDING AND FIXING OF BARS FOR CONCRETE REINFORCEMENT.
(h) IS:5525 CODE REQUIREMENTS FOR DETAILING OF REINFORCEMENT IN CONCRETE STRUCTURES.
(i) IS:7205 SAFETY CODE FOR ERECTION OF STRUCTURAL STEEL WORKS.
(j) IS:13920 DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES.
(k) IS:1893 CRITERIA FOR EARTHQUAKE RESISTANT DESIGN OF STRUCTURES.
(l) IS:1566–SPECIFICATION OF HARD–DRAWN STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT.
(m) IS:432–SPECIFICATION FOR MILD STEEL AND MEDIUM TENSILE STEEL BAR AND HARD–DRAWN STEEL WIRE FOR CONCRETE REINFORCEMENT.
(n) IS:1080–CODE OF PRACTICE DESIGN AND CONSTRUCTION OF SHALLOW FOUNDATIONS FOR CONCRETE REINFORCEMENT.
(o) IS:3370–CODE OF PRACTICE FOR THE STORAGE OF LIQUID PART I,II & III.
(p) BS:8110–STRUCTURAL USE OF CONCRETE (PART 1) (FOR DESIGN OF PRE–STRESSED MEMBERS)
(q) SP 6 (PART 1) STRUCTURAL STEEL SECTIONS.
(r) NATIONAL BUILDING CODE OF INDIA.
(s) SP 16 DESIGN AID FOR REINFORCED CONCRETE.
(t) SP 34 HANDBOOK ON CONCRETE REINFORCEMENT AND DETAILING.
(u) SP 23 HANDBOOK ON CONCRETE MIXES.
(v) SP 24 EXPLANATORY HANDBOOK ON INDIAN STANDARDS CODE FOR PLAIN AND REINFORCED CONCRETE STRUCTURES.
(y) 16700–CRITERIA FOR STRUCTURAL SAFETY OF TALL CONCRETE BUILDINGS.

4. CAST-IN-PLACE CONCRETE :

4.1. ALL CONCRETE SHALL BE AS PER APPROVED DESIGN MIX PROPORTIONATE TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW. CONCRETE SHALL BE PLACED AND CURED ACCORDING TO IS:456–2000 AND SPECIFICATIONS.

4.2. ALL STRUCTURAL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 30 N/SQ MM AT 28 DAYS EXCEPT AS MENTIONED IN 4.3.

4.3. ALL STRUCTURAL CONCRETE SHALL BE AS FOLLOWS :
(a) RAFT, PLINTH BEAMS = M30
(b) GRADE SLABS = M25
(c) RC WALLS, COLUMNS, BEAMS, SLABS UPTO FOURTH FLOOR = M40
(d) RC WALLS, BEAMS, SLABS FROM FOURTH FLOOR TO EIGHTH FLOOR = M35
(e) RC WALLS, BEAMS, SLABS FROM EIGHTH FLOOR TO TERRACE = M30
(f) STAIRCASE SLAB = M30

4.4 CEMENT : ALL CEMENT USED FOR STRUCTURAL PURPOSES SHALL BE 53 GRADE ORDINARY PORTLAND CEMENT CONFIRMING TO IS:12269, OTHER GRADE TO BE USED HAS TO BE BROUGHT TO THE NOTICE OF STRUCTURAL ENGINEER BEFORE COMMENCING WORK.

4.5 FINE AGGREGATE : ALL FINE AGGREGATE SHALL BE NATURAL GRADED AND CONFIRM TO IS:383.

4.6 COARSE AGGREGATE : MAXIMUM SIZE OF AGGREGATE SHALL BE 20MM, GRADED AND SHALL CONFIRM TO IS:383.

4.7 WATER: WATER USED FOR MIXING AND CURING SHALL BE CLEAN, FREE FROM FOREIGN MATTERS AND CONFIRM TO IS:456–2000.

4.8 ADMIXTURES : CONCRETE ADMIXTURES OF APPROVED MAKE SHALL BE USED TO IMPROVE WORKABILITY AND STRENGTH AS PER IS:456–2000 AND COMPLY WITH IS:9103.

4.9 THE STORAGE OF MATERIAL IS UNDER THE RESPONSIBILITY OF CONTRACTOR AND SHOULD SATISFY THE SPECIFICATIONS AS PER IS:456–2000 AND IS:4082.

4.10 THE CONCRETE MIX PROPORTIONS CHOSEN SHOULD POSSES ADEQUACY TO WORKABILITY AND COMPLY WITH SPECIFICATIONS GIVEN IN IS:456–2000.

4.11 SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD/LAB TESTS FOR REVIEW PRIOR TO USE.

4.12 THE MINIMUM AND MAXIMUM CEMENT CONTENT AND WATER CEMENT RATIO FOR CONCRETE MIX SHALL COMPLY WITH IS:456–2000 AND IS:10262.

4.13 THE MAXIMUM TIME ALLOWED FROM THE TIME OF MIXING WATER UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED 90 MINUTES (1½ HOURS).

4. CAST-IN-PLACE CONCRETE (CONT.):

4.13 CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITH IN THE STRUCTURE.

4.14 PCC SHALL BE 1:4:8 WITH 40MM AND DOWN SIZE GRADED MACHINE CRUSHED AGGREGATE AND SHALL HAVE MINIMUM CUBE STRENGTH OF 15 N/SQ MM AT 28 DAYS.

4.15 THE BATCHING AND MIXING SPECIFICATIONS SHALL BE IN ACCORDANCE WITH IS:456–2000 AND THE CONTRACTOR SHALL PROVIDE THE DESCRIPTION TO STRUCTURAL CONSULTANT FOR REVIEW.

4.16 THE CONCRETE SHALL BE PLACED WITH THE MAXIMUM FREE FALL OF 1.5M.

4.17 CONCRETE SHALL BE COMPACTED WITH MECHANICAL VIBRATORS COMPLY WITH IS:456–2000, IS:2505, IS:2506, IS:2514 AND IS:4656.

4.18 THE CUBE TEST HAS TO BE COMPLIED AS PER IS:456–2000.

4.19 150MM CUBE TEST SPECIMENS HAS TO BE CAST ALONG AND SHOULD BE TESTED IN A PERIOD OF 7 DAYS, 21 DAYS AND 28 DAYS.

4.20 THE TEST RESULT SHALL BE THE AVERAGE OF THREE SPECIMENS. THE INDIVIDUAL VARIATION SHOULD BE WITHIN ± 15 PERCENTAGE OF THE AVERAGE.
(a) THE TEST RESULTS HAS TO BE SUBMITTED TO THE STRUCTURAL CONSULTANT AND THE DESHUTTERING SHALL BE PROCESSED UPON THE APPROVAL.
(b) IN CASE OF NECESSITY TO OBTAIN THE STRENGTH OF STRUCTURAL ELEMENTS, THE TEST SHALL BE CARRIED AS PER THE SPECIFICATION PROVIDED BY IS:456–2000.

5. REINFORCING STEEL :

5.1 ALL REINFORCING STEEL SHALL CONFORM TO IS:1786–2008 HAVING MINIMUM YIELD STRENGTH OF 500 N/SQ MM, DENOTED AS 'T'.

5.2 ALL REINFORCING STEEL SHALL BE TESTED AND CERTIFICATE TO BE FURNISHED TO CONSULTANT BEFORE ITS USAGE AT SITE.

5.3 CONCRETE REINFORCEMENT SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH RELEVANT STRUCTURAL DRAWINGS, INDIAN STANDARD CODES AND SPECIFICATIONS.

5.4 IF THE REINFORCEMENT IS REQUIRED TO BE PROVIDED IN TWO LAYER TO AVOID CONGESTION AND FOR EASY PLACEMENT OF CONCRETE, SHALL BE BROUGHT TO THE NOTICE OF STRUCTURAL CONSULTANT FOR DECISION PRIOR TO EXECUTION.

5.5 WHEN THE GROUP OF BARS IS SPECIFIED, THE END BARS ARE TO BE PLACED CLOSE TO THE EDGE OF MEMBERS KEEPING THE MINIMUM COVER SPECIFIED AND THE INTERMEDIATE BARS ARE TO BE SPACED UNIFORMLY IN BETWEEN END BARS, UNO ON DRAWINGS.

5.6 LAYERS OF BARS SHALL BE SEPARATED BY SPACER BARS. SUCH SPACER BARS SHALL BE PLACED NOT MORE THAN 1M APART AND THE DIAMETER OF THE SPACER BAR SHALL BE ONE DIAMETER HIGHER THE BARS PLACED AS MAIN REINFORCEMENT.

5.7 ALL DOWELS PROVIDED FOR LAPPING SHALL BE EPOXY COATED IF LEFT EXPOSED FOR A PERIOD EXCEEDING 10 DAYS.

5.8 REINFORCING BARS SHALL BE TESTED WHENEVER A NEW LOT OF STEEL ARRIVES AT SITE, SUCH TESTS SHALL BE CONDUCTED FOR EACH DIAMETER OF THE REINFORCING BARS IN ACCORDANCE WITH INDIAN STANDARDS IN DESIGNATED LABORATORIES.

6. GEO-TECHNICAL DATA (AS SOIL REPORT):

6.1 BEARING CAPACITY OF THE SOIL IS TAKEN AS SHOWN BELOW.

SBC–200 KN/SQ M @ A DEPTH OF 2.00MT BELOW EXISTING GROUND LEVEL.
(AS PER THE GEO–TECHNICAL REPORT BY GEOLOGICS. MARCH–2025)

6.2 ALL RAFTS SHOULD REST ON HARD STRATA.

6.3 NO WATER LEVEL HAS BEEN SEEN AS PER GEO–TECHNICAL REPORT. EXECUTION SHALL BE IN ACCORDANCE TO GEO TECHNICAL RECOMMENDATIONS.

6.4 SOIL SHALL BE COMPACTED IN LAYERS AS PER SPECIFICATIONS TO ACHIEVE PROPER DENSITY BEFORE PLACING PCC TO AVOID ANY SETTLEMENT.

7. NOMINAL COVER TO REINFORCEMENT :

7.1 ENVIRONMENTAL EXPOSURE CONDITION IS "MODERATE" WITH 2 HOURS FIRE RATING.

7.2 CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 75MM.

7.3

FOUNDATIONS	50MM (BOTTOM) AND 75MM (SIDES)
GRADE SLAB	40MM (BOTTOM) AND 20MM (TOP)
BEAMS	30MM
COLUMNS AND SHEARWALLS	40MM
SLABS	25MM
STAIR CASE WAIST SLAB	25MM
RETAINING WALLS	40MM (ON EARTH SIDE) AND 20MM (INSIDE FACE)
PLINTH BEAMS	40MM
WATER TANK WALLS	40MM (EARTH SIDE), 30MM (WATER SIDE AND EXPOSURE SIDE)
PARAPET, UPSTAND & KERB WALLS	30MM

7.4 P.V.C. COVER BLOCKS OF APPROVED MAKE OR CEMENT MORTAR (1:2) COVER BLOCKS SHALL BE USED IN CONCRETE.

8. EXCAVATION :

8.1 PROPER TEMPORARY RETAINING MEASURES INCLUDING SHORING, STRUTTING, BRACING SHALL BE PROVIDED FOR EXCAVATION TO BASEMENT ADJOINING THE NEIGHBORING STRUCTURES TO HOLD EARTH WHERE REQUIRED.

8.2 100MM THK PCC BED CONCRETE SHALL BE PROVIDED UNDER ISOLATED AND COMBINED FOOTINGS.

8.3 DEWATERING SHALL BE DONE BY PROVIDING SUMPS DEEPER THAN THE GENERAL EXCAVATION FOR FOOTINGS BUT BEYOND THE BUILDING LINES. DEWATERING SHALL BE CONTINUOUS SUCH THAT THE EXCAVATION SHALL BE FREE FROM WATER AT ANY TIME OF WORK.

8.4 EXCAVATION SHALL BE DONE BEYOND THE FOOTING/BASEMENT AS INDICATED IN THE DRAWINGS.

8.5 PROTECTION OF SLOPES/EXCAVATIONS FALLS UNDER CONTRACTOR PURVIEW.

9. DEVELOPMENT AND ANCHORAGE LENGTHS :

9.1 THE FOLLOWING DEVELOPMENT LENGTHS SHALL BE PROVIDED FOR REINFORCEMENT IN MM.

	BAR IN TENSION (Ldt)					BAR IN COMPRESSION (Ldc)				
FOR 'T'	M20	M25	M30	M35	M40	M20	M25	M30	M35	M40
8	475	400	375	325	300	375	325	300	275	250
10	575	500	575	400	375	475	400	375	325	300
12	700	600	550	500	450	550	475	450	400	350
16	925	800	725	650	575	725	625	600	525	475
20	1150	975	925	800	725	925	800	725	650	575
25	1425	1225	1150	1000	900	1150	975	925	800	725
28	1600	1375	1275	1125	1025	1275	1100	1025	900	825
32	1825	1575	1450	1300	1150	1450	1250	1175	1025	925
36	2050	1750	1650	1450	1300	1650	1400	1325	1175	1050

9.2 LAPS FOR REINFORCEMENT IN COMPRESSION SHALL BE ACCOUNTED ONLY AS STRAIGHT LENGTHS AND NO HOOKS OR BENDS ARE ACCOUNTED FOR COMPRESSION LAPS OR ANCHORAGES.

9.3 STANDARD HOOKS OR BENDS SHALL BE PROVIDED WHERE NECESSARY IN TENSION REINFORCEMENTS IN BEAMS, COLUMNS, SLABS, ETC.

9.4 FOR BUNDLED BARS THE DEVELOPMENT LENGTH SHALL BE INCREASED BY 10% FOR TWO BARS IN CONTACT, 20% FOR THREE BARS IN CONTACT AND 33% FOR FOUR BARS IN CONTACT.

9.5 MECHANICAL ANCHORAGE OF APPROVED MANUFACTURERS SHALL BE USED FOR COLUMN SPLICES FOR 25MM DIA AND ABOVE, AND ARE TO BE AS PER DESIGN DRAWINGS AND SHALL HAVE MINIMUM YIELD STRENGTH OF 1.25 TIMES MORE THAN THE GRADE OF MAIN STEEL.

9.6 ALL SPLICE (LAPS) FOR COLUMN REINFORCEMENTS SHALL BE PROVIDED AT SUITABLE LOCATION ABOVE FLOOR LEVEL UNLESS OTHERWISE SHOWN ON DRAWINGS. NOT MORE THAN 50% OF BARS SHALL BE SPLICED AT ANY GIVEN LOCATION. SPLICES SHALL BE STAGGERED BY A MINIMUM OF 450MM.

10. WATER PROOFING :

10.1 WATER PROOFING SHALL BE DONE FOR SUMP TANKS, OVERHEAD TANK, RETAINING WALLS, TOILET SLABS AND TERRACE AS PER ARCHITECTURAL SPECIFICATIONS AND REQUIREMENTS.

11. CURING :

11.1 APPROVED CURING COMPOUNDS SHALL BE USED WITH THE PERMISSION OF STRUCTURAL CONSULTANT FOR VERTICAL ELEMENTS.

11.2 CURING BY WATER SHALL BE DONE FOR OTHER ELEMENTS FOR A MINIMUM PERIOD OF 14 DAYS.

12. DESHUTTERING TIME :

12.1 TYPE OF FORM WORK FOR : MINIMUM PERIOD BEFORE STRIKING (EXCLUDING THE DAY OF CASTING)
(a) RC SLABS UP TO 4.5M – 07 DAYS : OVER 4.5M – 14 DAYS
(b) BEAMS UP TO 6.0M – 14 DAYS : OVER 6.0M – 21 DAYS
(c) WALL/BEAM/COLUMN VERTICAL FACES – 1 DAY

12.2 SHUTTERING CAN BE RELEASED EARLIER THAN SPECIFIED ABOVE PROVIDED THE PROPS ARE RETAINED AT REASONABLE SPACING AND CONCRETE ATTAINS ITS FULL STRENGTH AT THE TIME OF DESHUTTERING AS PER IS:456–2000. DESHUTTERING SHALL BE DONE BY PROVIDING DAMPENING MATERIAL BELOW IN ORDER TO REDUCE THE IMPACT AT THE LOWER LEVEL.

12.3 SIMPLY SUPPORTED AND CONTINUOUS SPANS SHALL BE DESHUTTERED FROM MID SPAN TOWARDS SUPPORTS. CANTILEVERS SHALL BE DESHUTTERED FROM FREE END TOWARDS SUPPORTS.

12.4 SLAB/BEAMS SHALL BE RE–PROPPED UNTIL THE NEXT LEVEL SLAB IS CAST AND DESHUTTERED.

12.5 THE CONTRACTOR SHALL BE RESPONSIBLE TO DESIGN AND SUBMIT PROPPING AND RE–PROPPING DETAILS TO CONSULTANT/ARCHITECT FOR THEIR REVIEW AND RECORD.

13. CONSTRUCTION JOINTS :

13.1 SLABS : AT ONE THIRD OF THE SPAN.

13.2 BEAMS : AT ONE THIRD OF THE SPAN. IF ANY CROSS BEAMS ARE LOCATED IN THIS REGION THE JOINT SHALL BE LOCATED TWO TIMES THE WIDTH OF THE BEAM AWAY FROM THE CROSS BEAM.

13.3 RETAINING WALL : AT THE JUNCTION OF THE WALL AND FOOTING WITH A WALL KEY JOINT AND AT MIDDLE OF VERTICAL SPAN, VERTICAL JOINTS TO BE AVOIDED.

13.4 CANTILEVERS : CONSTRUCTION JOINT SHALL NOT BE PROVIDED IN CANTILEVERS.

13.5 CONSTRUCTION JOINTS SHALL BE STRAIGHT.

13.6 AT CONSTRUCTION JOINTS OF WATER RETAINING STRUCTURES AND BASEMENTS PRE FORMED PLASTIC WATER STOP/WATER BARS SHALL BE PROVIDED.

13.7 ANY DEVIATION OR ADDITION OF CONSTRUCTION JOINT FROM THAT SHOWN ON THE PLANS MUST BE REVIEWED BY THE ENGINEER. ALTERNATE OR ADDED CONSTRUCTION JOINT LOCATIONS ARE ACCEPTABLE ONLY AFTER REVIEW BY STRUCTURAL ENGINEER.

13.8 BEFORE RESUMING WORK AT ANY CONSTRUCTION JOINT WHERE CONCRETE HAS NOT YET FULLY HARDENED, ALL LAITANCE SHALL BE REMOVED THOROUGHLY.

13.9 WHEN WORK HAS TO BE RESUMED ON HARDENED SURFACE, THE SAME SHALL BE HACKED, CLEANED, WETTED AND LAYER OF NITO BOND OR SIMILAR BONDING AGENT HAS TO BE APPLIED.

13.10 LOCATION AND ARRANGEMENT OF SHRINKAGE STRIPS SHALL BE MARKED ON THE DRAWINGS AND APPROVAL SHALL BE OBTAINED FROM THE CONSULTANT BEFORE PROCEEDING TO EXECUTION OF WORK.

13.11 NOZZLES FOR GROUTING SHALL BE PLACED AT ALL CONSTRUCTION JOINTS IN RAFT, RETAINING WALLS, JOINTS BETWEEN TWO VERTICAL WALL, JOINTS BETWEEN RAFT AND WALL, PILE CAP AND RAFT ETC., AND ALL SUCH PIPES SHALL BE GROUTED TO MAKE THE CONSTRUCTION JOINT WATER TIGHT.

14. CONSULTANT APPROVAL :

14.1 CONSULTANT SHALL APPROVE THE CONCRETING SURFACE AFTER INSPECTION AND REMEDIAL MEASURES (IF ANY) TO BE DONE BEFORE ANY PLASTERING WORK IS TAKEN UP ON CONCRETE SURFACE. HOWEVER THIS DOES NOT EXCLUDE THE CONTRACTOR OF HIS RESPONSIBILITY FOR GETTING THE REQUIRED STRENGTH OF CONCRETE.

15. CAMBER FOR CANTILEVERS :

15.1 FOR UP TO 1.5M CANTILEVERS 10MM.

15.2 FROM 1.5M TO 2.5M CANTILEVERS 15MM.

16. PLUMBING SLEEVES :

16.1 SLEEVE LOCATIONS AND SIZES MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. MINIMUM SLEEVE SPACING SHALL BE THREE DIAMETERS CENTER TO CENTER OF THE LARGER SLEEVE OR 150MM CLEAR BETWEEN SLEEVES, WHICHEVER IS GREATER. SLEEVES OR GROUPS OF SLEEVES 400MM IN DIAMETER AND LARGER SHALL BE TREATED AS A SLAB OPENING AND REINFORCED PER TYPICAL OPENING REINFORCING DETAILS.

17. EMBEDDED CONDUITS :

17.1 LOCATIONS AND SIZES OF CONDUIT MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT WITHIN SLABS, BEAMS OR WALLS. CONDUIT SHALL OCCUPY ONLY THE MIDDLE ONE THIRD OF THE MEMBER DEPTH OR THICKNESS. MAXIMUM CONDUIT OUTER DIAMETER FOR SINGLE CONDUIT OR SUM OF OUTER DIAMETERS FOR MULTIPLE CONDUITS THAT CROSS SHALL BE NO LARGER THAN ONE THIRD THE SLAB DEPTH. PARALLEL CONDUITS SHALL BE SPACED WITH A MINIMUM OF 3 DIAMETERS CLEAR. CONDUITS SHALL BE A MINIMUM OF ONE DIAMETER AWAY FROM AND SHALL NOT INTERFERE WITH OR DISPLACE ANY REINFORCEMENT. CONDUIT SHALL NOT BE TIED TO REINFORCEMENT. CONDUITS SHALL NOT OCCUR WITHIN COLUMN ZONES OF SLABS AND OR TRANSVERSE GIRDERS. CONDUIT PLACEMENT SHALL NOT IMPAIR THE STRENGTH OF THE CONSTRUCTION AS JUDGED BY THE ENGINEER. WITHIN 200MM SLAB, MAXIMUM CONDUIT SIZE IS 40MM DIAMETER.

18. FLOOR RENDERING :

18.1 THICKNESS OF SCREED RENDERING/MASS CONCRETE TOPPING EXCEEDING 50MM SHALL BE PROVIDED WITH SUITABLE MESH REINFORCEMENT TO PREVENT SHRINKAGE CRACKS.

19 MOVEMENT CRACKS :

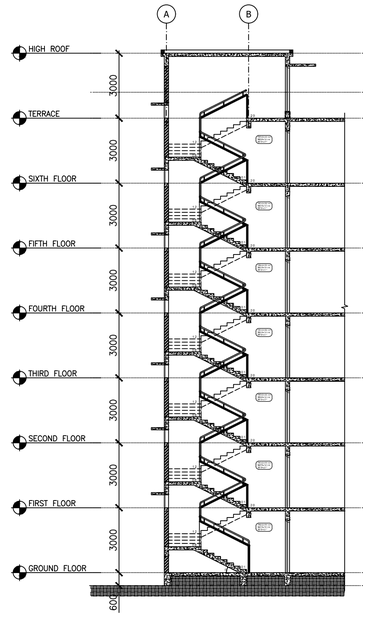
19.1 ALL VISIBLE CRACKS IN NEWLY CAST CONCRETE SHALL BE SEALED BY PRESSURE GROUTING BEFORE APPLICATION OF FINISHES.

20. AS BUILT DRAWINGS :

20.1 THE CONTRACTOR SHALL PREPARE THE "AS–BUILT" DRAWINGS INCORPORATING ALL THE CHANGES IN THE STRUCTURE MADE DURING CONSTRUCTION AND SUBMIT ONE DIGITAL COPY AND HARD COPY TO THE CONSULTANT WITHIN 30 DAYS OF COMPLETION OF STRUCTURAL WORKS.

ABBREVIATIONS

ADD	– ADDITIONAL	L	– ANGLE
ALT	– ALTERNATE	Ld	– DEVELOPMENT LENGTH
APPROX	– APPROXIMATELY	Ldc	– DEVELOPMENT LENGTH IN COMPRESSION
ARCH	– ARCHITECT	Ldt	– DEVELOPMENT LENGTH IN TENSION
ARCHL	– ARCHITECTURAL	LG	– LONG
B/	– BOTTOM OF	LLH	– LONG LEG HORIZONTAL
BB	– BOTTOM BAR	LLV	– LONG LEG VERTICAL
BT	– BOTTOM BAR TOP	LP	– LOW POINT
BLDG	– BUILDING	LVL	– LEVEL
BOTT	– BOTTOM	LW	– LONG WAY
BRG	– BEARING	M	– METERS
BW	– BOTH WAYS	MFR	– MANUFACTURER
C/C	– CENTER TO CENTER	MATL	– MATERIAL
CIP	– CAST IN PLACE	MAX	– MAXIMUM
CJ	– CONTROL JOINT	MECHL	– MECHANICAL
CL/℄	– CENTERLINE	MIN	– MINIMUM
CLR	– CLEAR	MISC	– MISCELLANEOUS
CMU	– CONCRETE MASONRY UNIT	MM	– MILLIMETER
COL	– COLUMN	NS	– NEAR SIDE
CONC	– CONCRETE	NW	– NORMAL WEIGHT
CONT	– CONTINUOUS	NTS	– NOT TO SCALE
CONTR	– CONTRACTOR	OC	– ON CENTER
CSJ	– CONSTRUCTION JOINT	OF	– OUTER FACE
CTR	– CENTER	OH	– OPPOSITE HAND
db	– REINFORCEMENT BAR DIAMETER	OPNG	– OPENING
DBL	– DOUBLE	PART	– PARTITION
DET	– DETAIL	PC	– PILE CAP
DIA	– DIAMETER	PCC	– PLAIN CEMENT CONCRETE
DIAG	– DIAGONAL	PED	– PEDESTAL
DIM	– DIMENSION	PL	– PLATE
DN	– DOWN	PT	– POST TENSION
DR	– DRAIN	R	– RADIUS
DWG	– DRAWING	RCC	– REINFORCED CEMENT CONCRETE
EA	– EACH	REF	– REFERENCE
EE	– EACH END	REG	– REGULAR
EF	– EACH FACE	REINF	– REINFORCING/REINFORCEMENT
EJ	– EXPANSION JOINT	REM	– REMAINDER
EL	– ELEVATION	REQD	– REQUIRED
ELEV	– ELEVATOR	RET/RW	– RETAINING WALL
ENGR	– ENGINEER	REV	– REVISED/REVISION
EOR	– ENGINEER OF RECORD	RQMTS	– REQUIREMENTS
EOS	– EDGE OF SLAB	SBC	– SAFE BEARING CAPACITY
EQ	– EQUAL	SBM	– SOLID BLOCK MASONRY
EW	– EACH WAY	SCHED	– SCHEDULE
EXIST	– EXISTING	SECT	– SECTION
EXP	– EXPANSION	SFR	– SIDE FACE REINFORCEMENT
EXT	– EXTERIOR	SIM	– SIMILAR
FF	– FAR FACE	SL	– SLOPE
FFL	– FINISHED FLOOR LEVEL	SOG	– SLAB–ON–GRADE
FIN	– FINISH	SPECS	– SPECIFICATIONS
FLR	– FLOOR	SQ	– SQUARE
FDN	– FOUNDATION	SS	– STAINLESS STEEL
FS	– FAR SIDE	SSL	– STRUCTURAL SLAB LEVEL
FT	– FOOT	SSM	– SIZE STONE MASONRY
FTG	– FOOTING	STD	– STANDARD
GA	– GAGE	STL	– STEEL
GALV	– GALVANIZED	STRUCTL	– STRUCTURAL
GC	– GENERAL CONTRACTOR	SW	– SHEARWALL
GFC	– GOOD FOR CONSTRUCTION	TB	– TOP BAR BOTTOM
HK	– HOOK	TC	– TIE COLUMN
HORIZ	– HORIZONTAL	TT	– TOP BAR TOP
HP	– HIGH POINT	T/	– TOP OF
IF	– INNER FACE	TEMP	– TEMPERATURE
IJ	– ISOLATION JOINT	THK	– THICK/THICKNESS
INFO	– INFORMATION	TYP	– TYPICAL
INS	– INSULATION	UNO	– UNLESS NOTED OTHERWISE
INT	– INTERIOR	VERT	– VERTICAL
ISA	– INDIAN STANDARD ANGLE	W/	– WITH
ISMB	– INDIAN STANDARD MEDIUM BEAM	W/O	– WITHOUT
ISMC	– INDIAN STANDARD MEDIUM CHANNEL	WP	– WORK POINT
JT	– JOINT	WWR	– WELDED WIRE REINFORCING
KN	– KILO NEWTON	WMM	– WET MIX MACADAM



KEY ELEVATION

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DATE	DESCRIPTION	REV

KEY PLAN

PROJECT;

PROPOSED HOSTEL BLOCK FOR BIT AT MESRA, RANCHI

ARCHITECTS:

STRUCTURAL CONSULTANTS

FOR TENDER ONLY

DESIGN	
DRAWN	
CHECKED	
APPROVED	
SCALE	

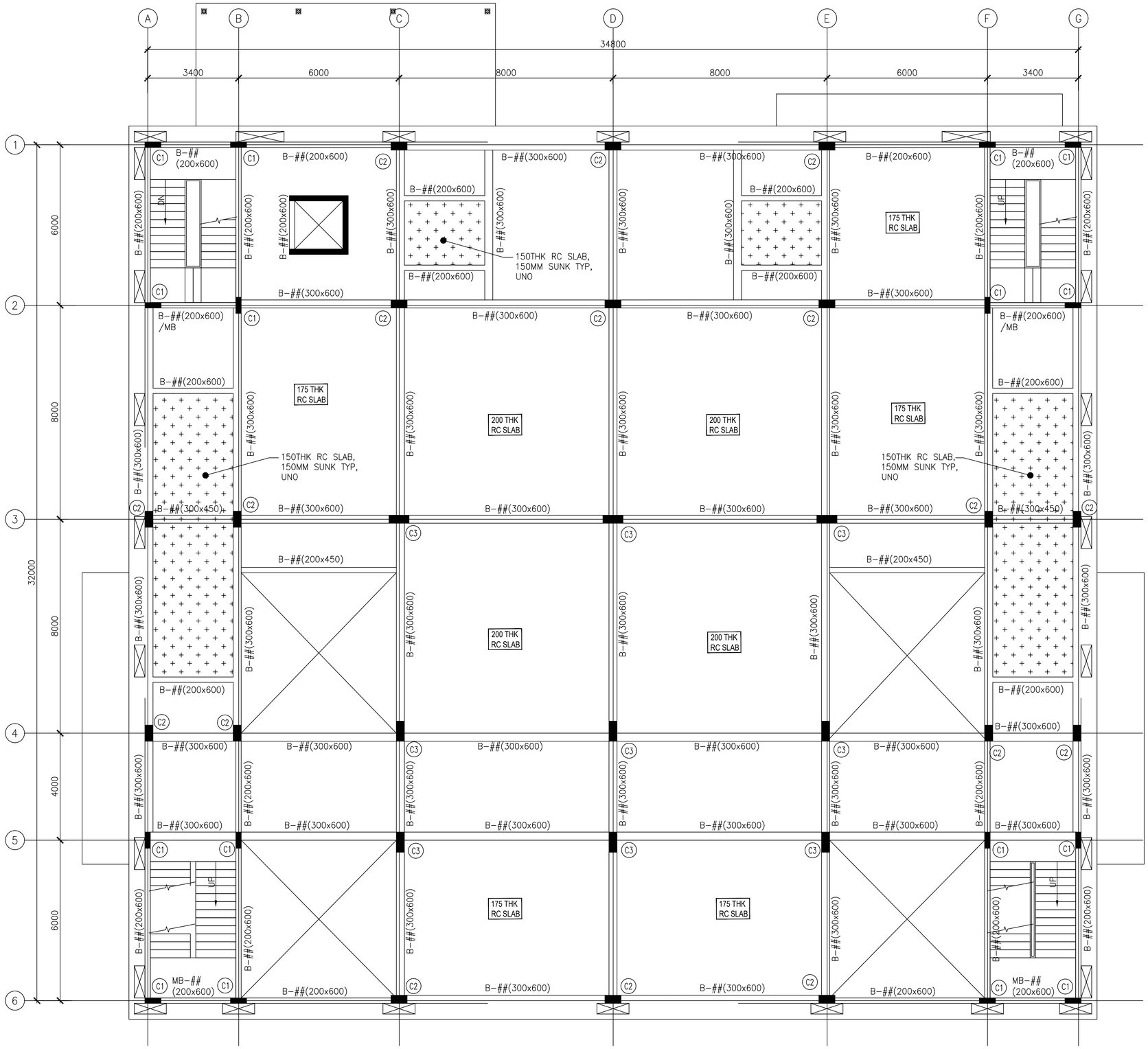
DRAWING TITLE

STRUCTURAL GENERAL NOTES

DRAWING NUMBER

S001

DATE :	REVISION : R0



PLEASE PROVIDE SECTIONS AT CANOPIES

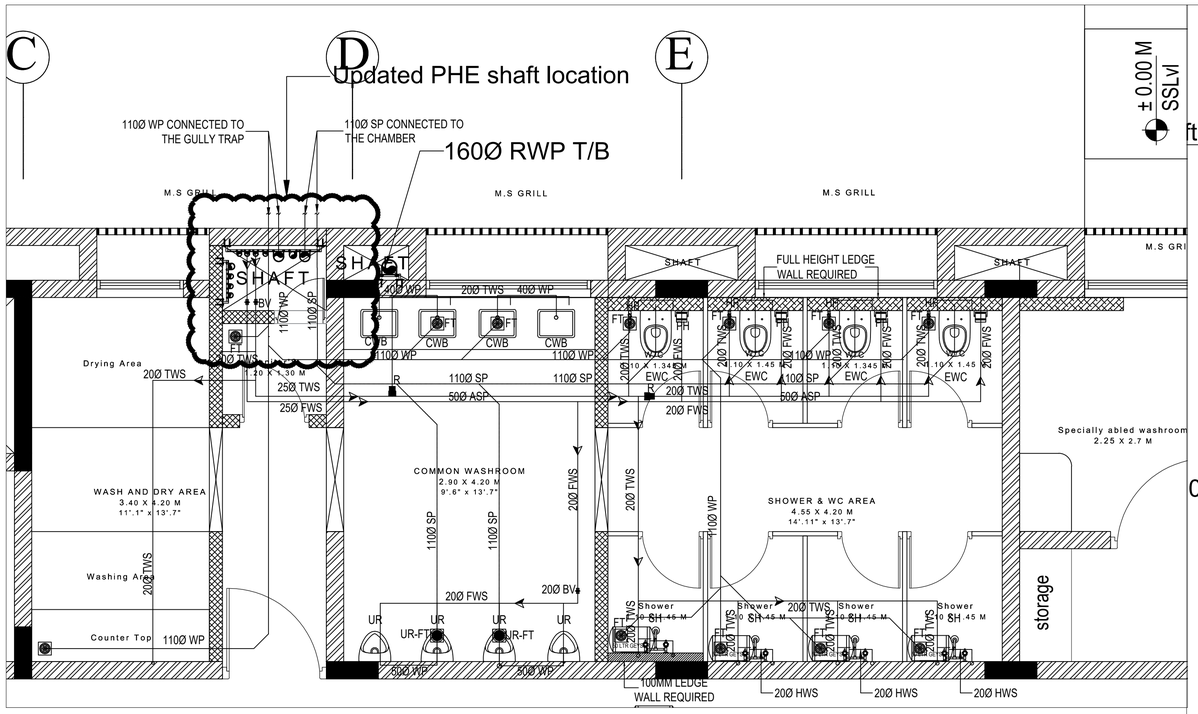
FIRST FLOOR FRAMING PLAN

SCALE : 1:75

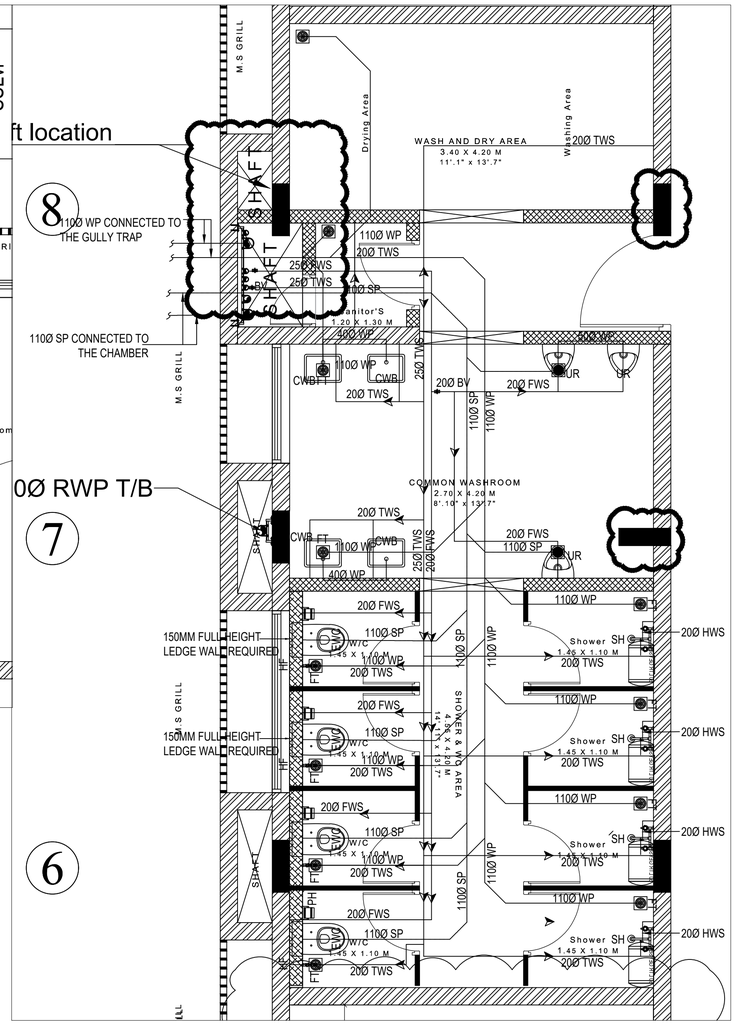
NOTE : ALL SLABS ARE 150THK RC, UNO

COLUMN NOS	COLUMN SIZES
C1	200x600
C2	300x600
C3	300x750

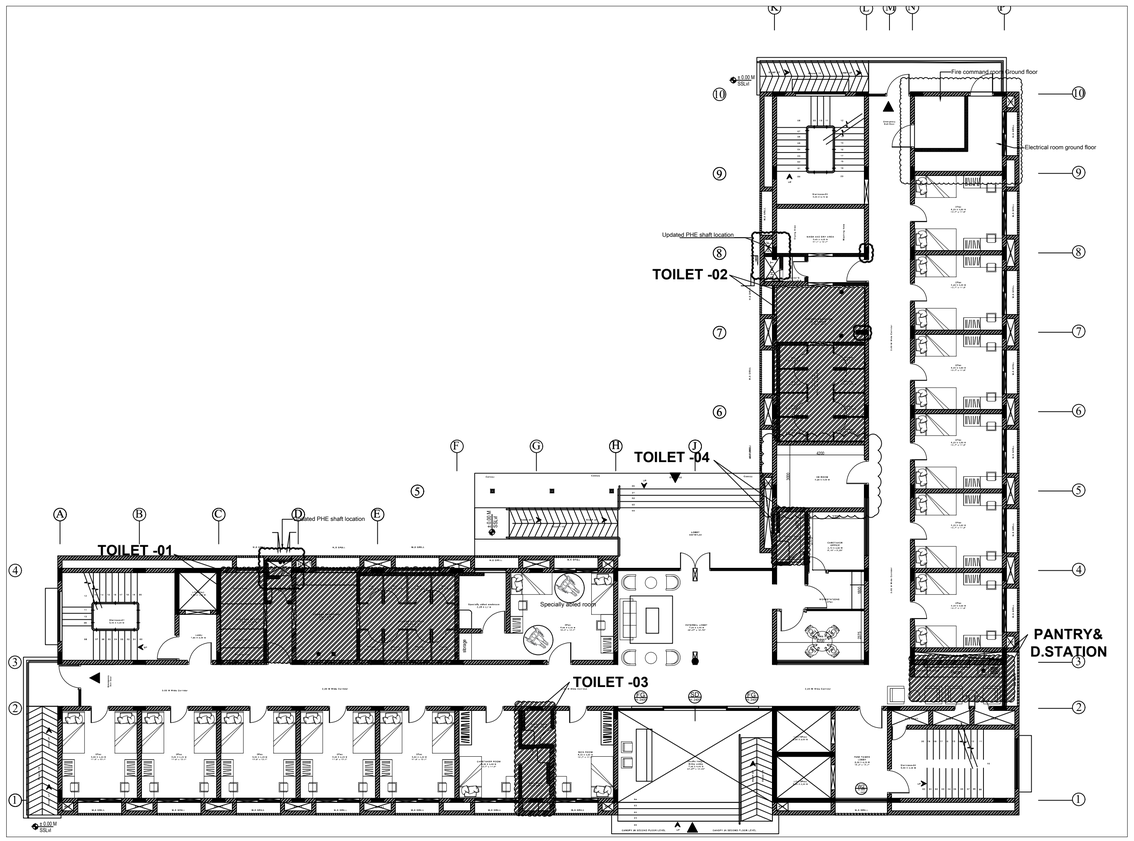
PHE drawing Set

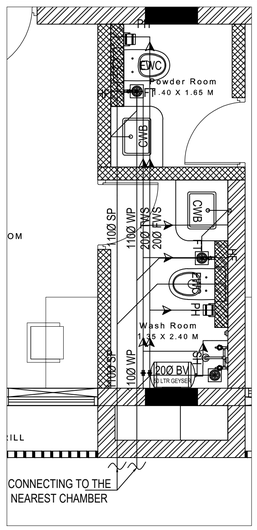


TOILET -01 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50

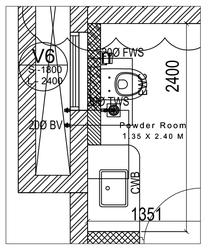


TOILET -02 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50



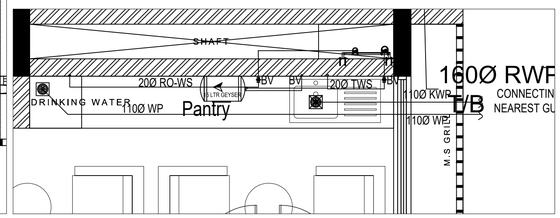


TOILET -03 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50



Sl No.	ABBREVIATION	LEGEND DESCRIPTION
1.	EWC	EUROPEAN WATER CLOSET
2.	CWB	COUNTER WASH BASIN
3.	SH	SHOWER
4.	UR	URINAL
5.	FT	P-TRAP
6.	BV	BALL VALVE
7.	TWS	TREATED WATER SUPPLY
8.	HWS	HOT WATER SUPPLY
9.	HWR	HOT WATER RETURN
10.	FWS	FLUSH WATER SUPPLY
11.	TWS	TREATED WATER SUPPLY PRM LINE
12.	FWS	FLUSH WATER SUPPLY PRM LINE
13.	SP	SOIL PIPE
14.	WP	WASTE PIPE

TOILET -04 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50



PANTRY & DRINKING STATION DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50

KEY PLAN

GENERAL NOTES:
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5. MAINTAIN COLOUR CODING OF CONDUIT AS INDICATED TECHNICAL SPECIFICATION

ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	19-02-2026	TENDER DRAWING.	
R1	23-03-2026	TENDER DRAWING. (HEAT PUMP SYSTEM FOR HOT WATER HAS BEEN ELIMINATED, ELECTRIC WATER HEATER IS BEING PROVIDED AS INSTRUCTED BY CLIENT)	

JOB TITLE : PROPOSED BOYS HOSTEL -MESRA

CLIENT:

CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

ARCHITECTS :

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: **TENDER DRAWING**

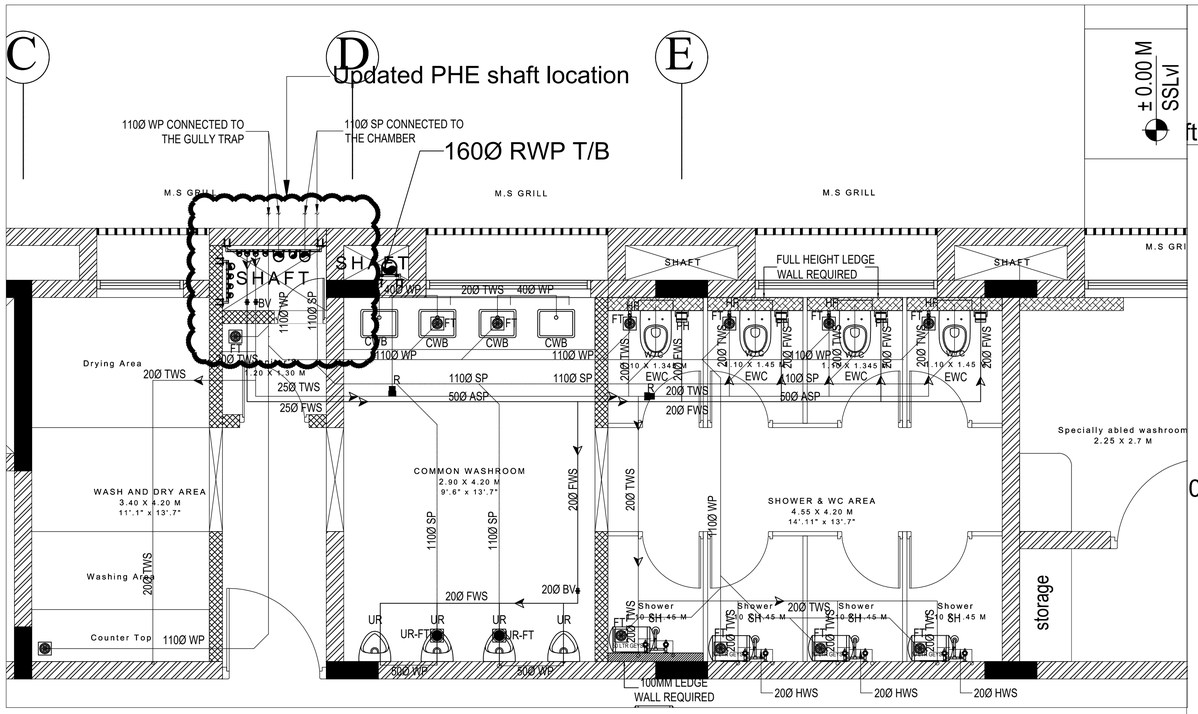
SEAL:

APPROVED BY:

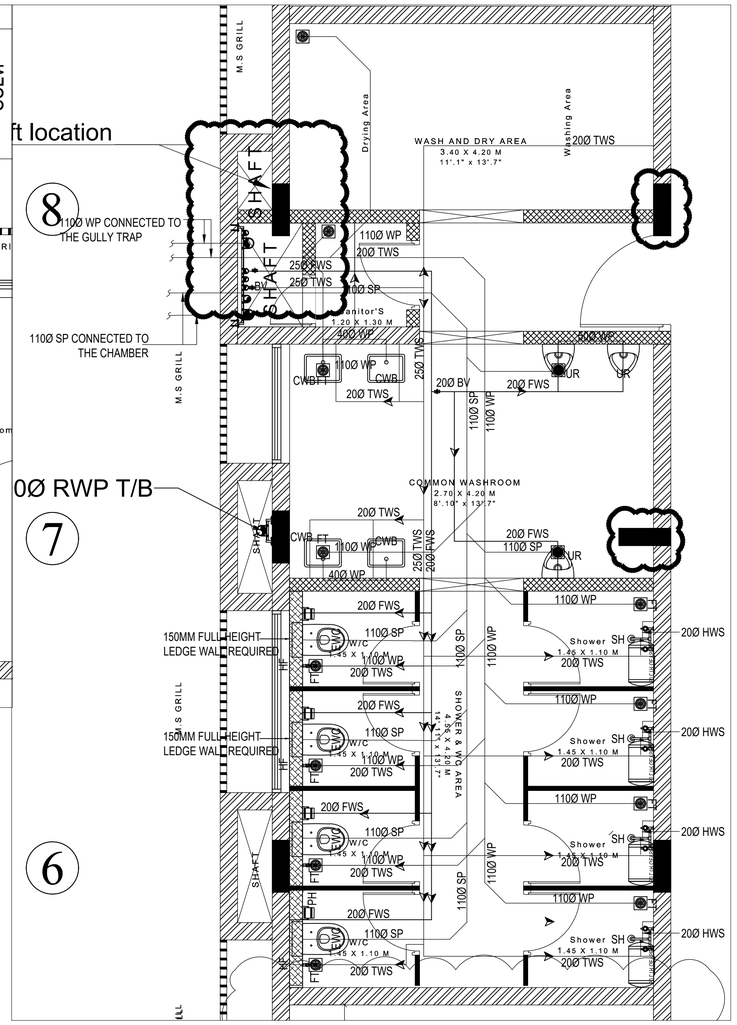
PLUMBING DRAWING

DRAWING TITLE: **ENTRY & EXIT LAYOUT AT GROUND FLOOR**

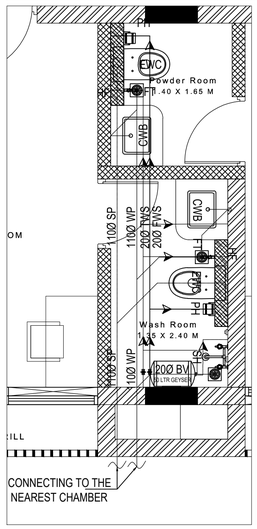
SCALE	: 1: 50 (A2)	REVISION NO:	ORIENTATION:
DATE	: 19.02.2026	R0	
DESIGNED BY	: SANKETH		
DEALT BY	: SANKETH		
CHECKED BY	: SANGA	DRAWING NO:	
		SL-BIRLA-HB-TD-PL-001	



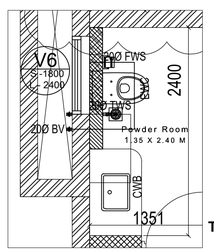
TOILET -01 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50



TOILET -02 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50

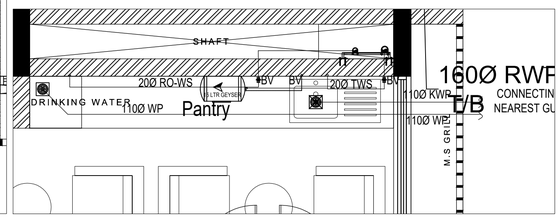


TOILET -03 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50

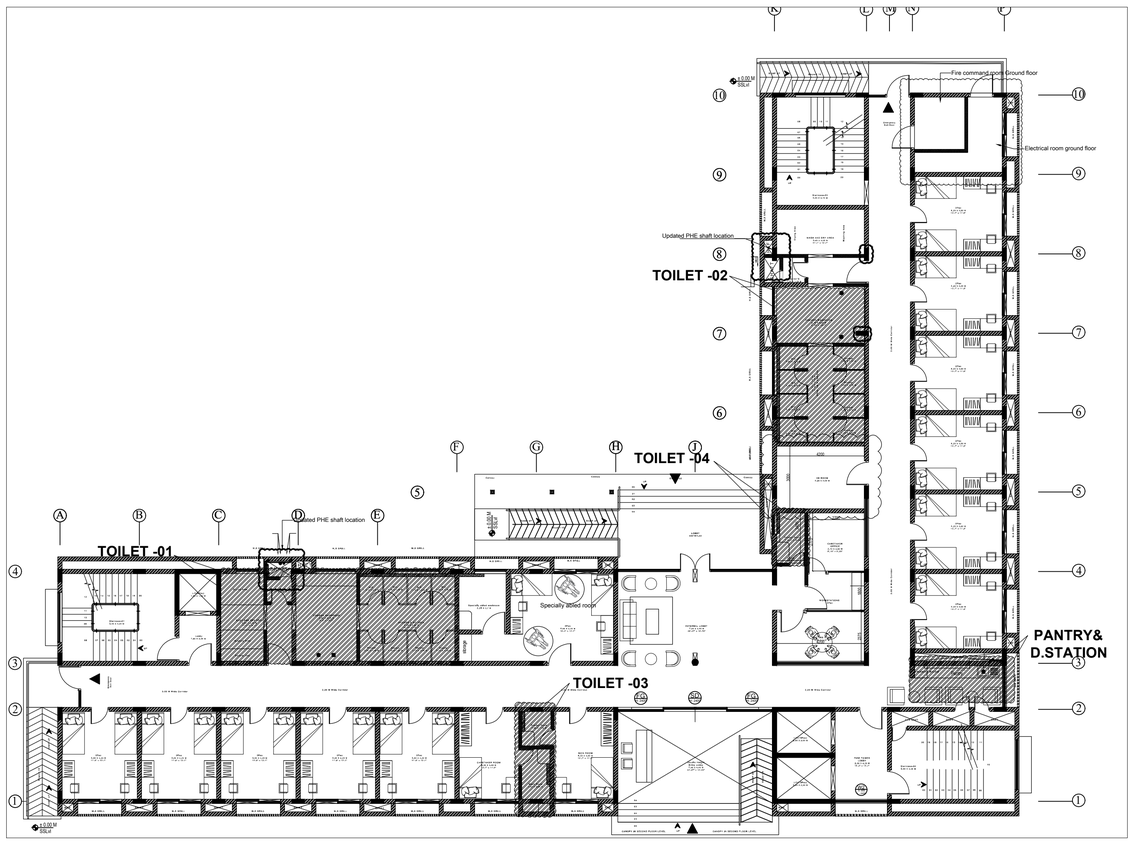


TOILET -04 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50

Sl No.	ABBREVIATION	DESCRIPTION
1.	EWC	EUROPEAN WATER CLOSET
2.	CWB	COUNTER WASH BASIN
3.	SH	SHOWER
4.	UR	URINAL
5.	FT	P-TRAP
6.	BV	BALL VALVE
7.	TWS	TREATED WATER SUPPLY
8.	HWS	HOT WATER SUPPLY
9.	HWR	HOT WATER RETURN
10.	FWS	FLUSH WATER SUPPLY
11.	TWS	TREATED WATER SUPPLY PRM LINE
12.	FWS	FLUSH WATER SUPPLY PRM LINE
13.	SP	SOIL PIPE
14.	WP	WASTE PIPE



PANTRY & DRINKING STATION DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50



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ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	19-02-2026	TENDER DRAWING.	
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JOB TITLE : PROPOSED BOYS HOSTEL -MESRA

CLIENT:

CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

ARCHITECTS :

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: **TENDER DRAWING**

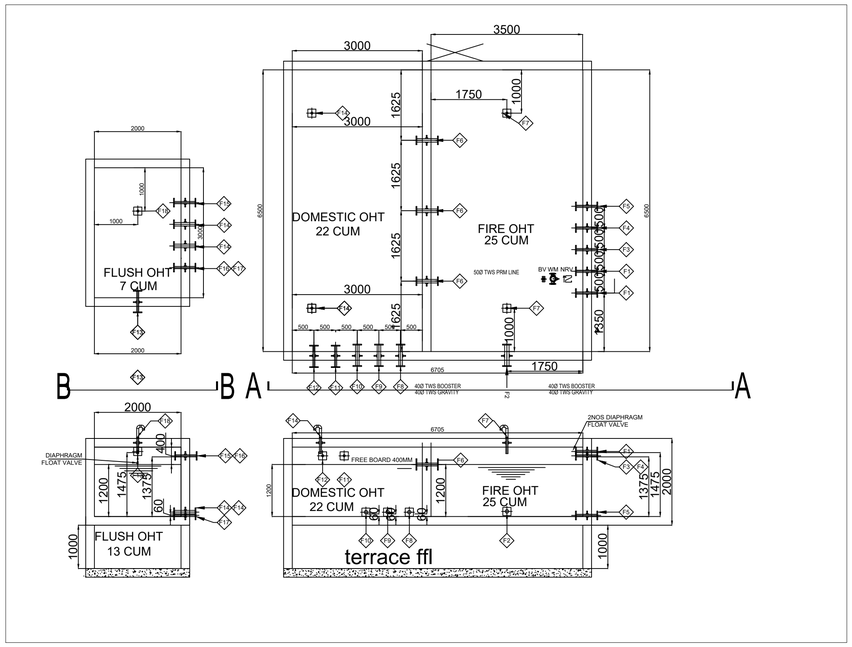
SEAL:

APPROVED BY:

PLUMBING DRAWING

DRAWING TITLE: **ENTRY & EXIT LAYOUT AT GROUND FLOOR**

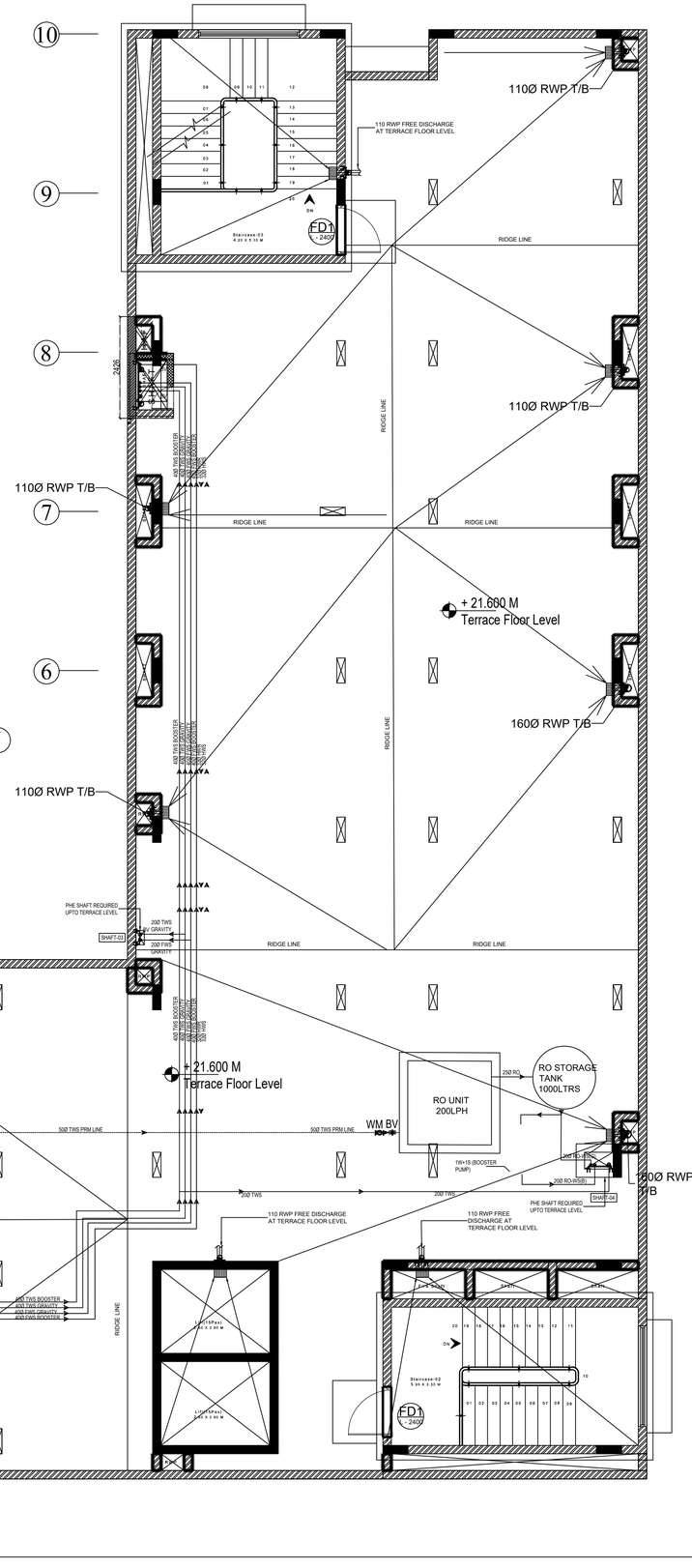
SCALE	: 1: 50 (A2)	REVISION NO:	ORIENTATION:
DATE	: 19.02.2026	R0	
DESIGNED BY	: SANKETH		
DEALT BY	: SANKETH		
CHECKED BY	: SANGA	DRAWING NO:	
		SL-BIRLA-HB-TD-PL-001	

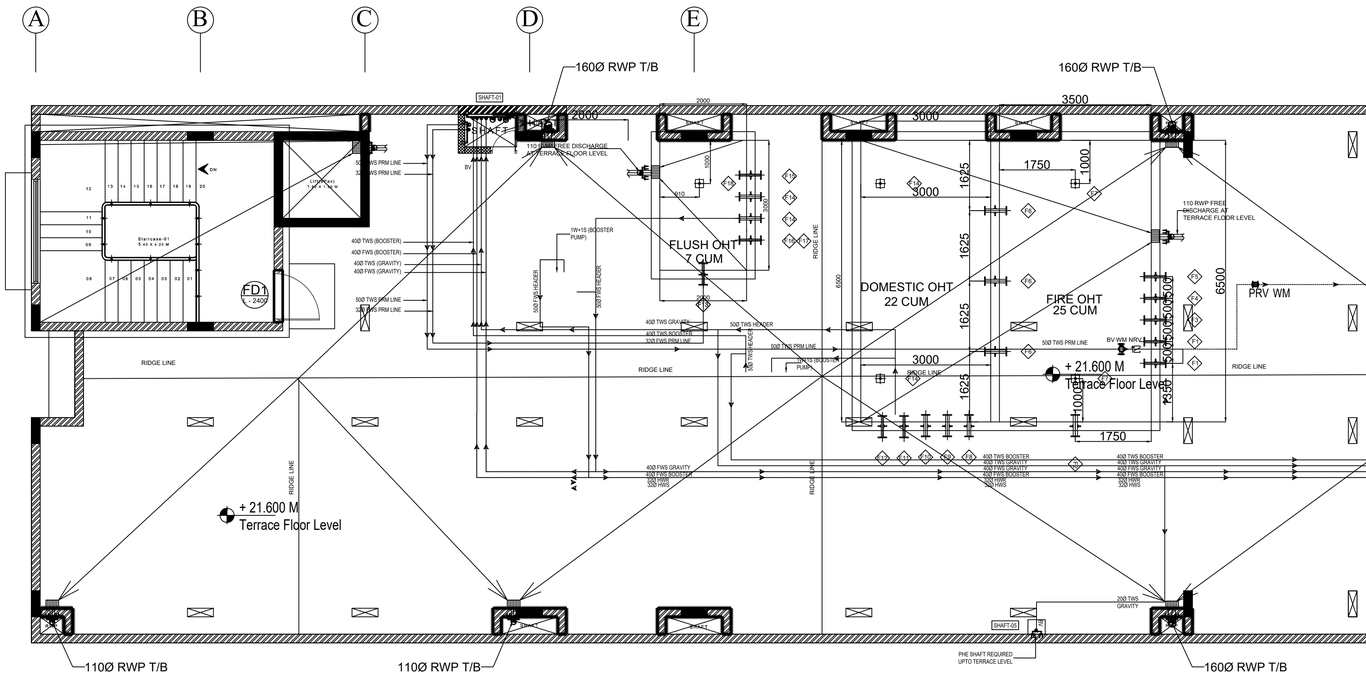


SCHEDULE OF PUDDLE FLANGE:

S/N	SLEEVE No.	No. OF SLEEVES	DIA (mm)	PURPOSE
				FIRE WATER OHT
1	F1	2	50	PRM INLET FOR FIRE OHT
2	F2	1	100	OUTLET FROM FIRE OHT
3	F3	1	50	WATER LEVEL CONTROLLER
4	F4	1	65	TANK OVER FLOW
5	F5	1	50	TANK DRAIN
6	F6	3	80	TANK OVER FLOW FROM FIRE OHT TO DOMESTIC OHT
7	F7	2	50	VENT PIPE
				DOMESTIC OHT
8	F8	1	100	OUTLET FROM DOMESTIC OHT
9	F9	1	50	TANK DRAIN
10	F10	1	65	TANK OVER FLOW
11	F11	1	50	WATER LEVEL CONTROLLER
12	F12	2	50	VENT PIPE
				FLUSHING OHT
13	F13	1	32	PRM INLET FOR FLUSHING OHT
14	F14	1	80	OUTLET FROM FLUSHING OHT
15	F15	1	50	WATER LEVEL CONTROLLER
16	F16	1	65	TANK OVER FLOW
17	F17	1	50	TANK DRAIN
18	F18	2	50	VENT PIPE

LEGEND	
BV	BALL VALVE
TWS	TREATED WATER SUPPLY
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
FWS	FLUSH WATER SUPPLY
TWS	TREATED WATER SUPPLY PRM LINE
FWS	FLUSH WATER SUPPLY PRM LINE
SP	SOIL PIPE
WP	WASTE PIPE
ASP	ANTI SYPHONAGE PIPE
RWP	RAIN WATER PIPE
	SIDE WALL KHURRA
	SLOPE (FLOOR LEVEL)
	SLOPE (ABOVE TERRACE LEVEL)





KEY PLAN

GENERAL NOTES:
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ARCHITECTURAL REVISIONS:

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PLUMBING REVISIONS:

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JOB TITLE : PROPOSED BOYS HOSTEL -MESRA

CLIENT:

CLIENT — **Birla Institute of Technology**, Mesra,Ranchi(India)-835215

ARCHITECTS :

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: **TENDER DRAWING**

SEAL:

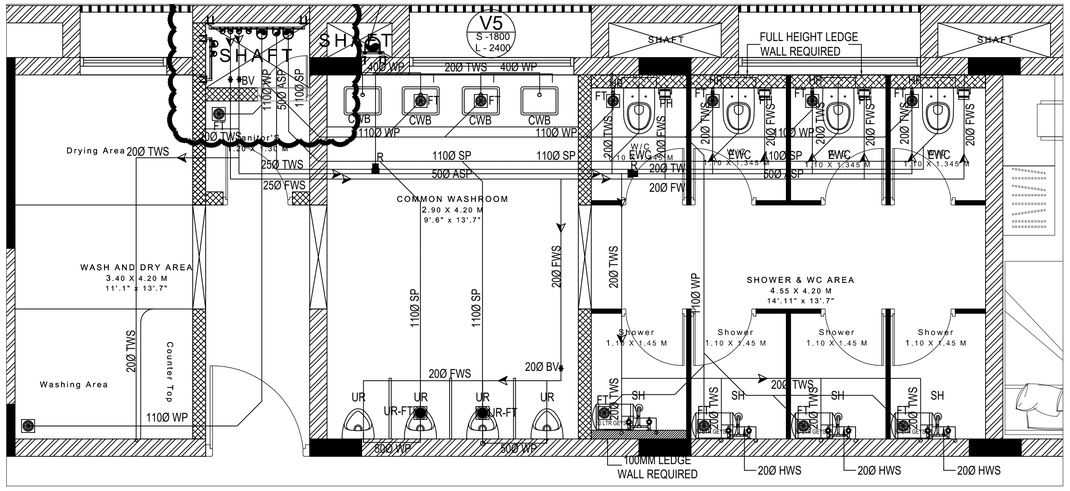
APPROVED BY:

PLUMBING DRAWING

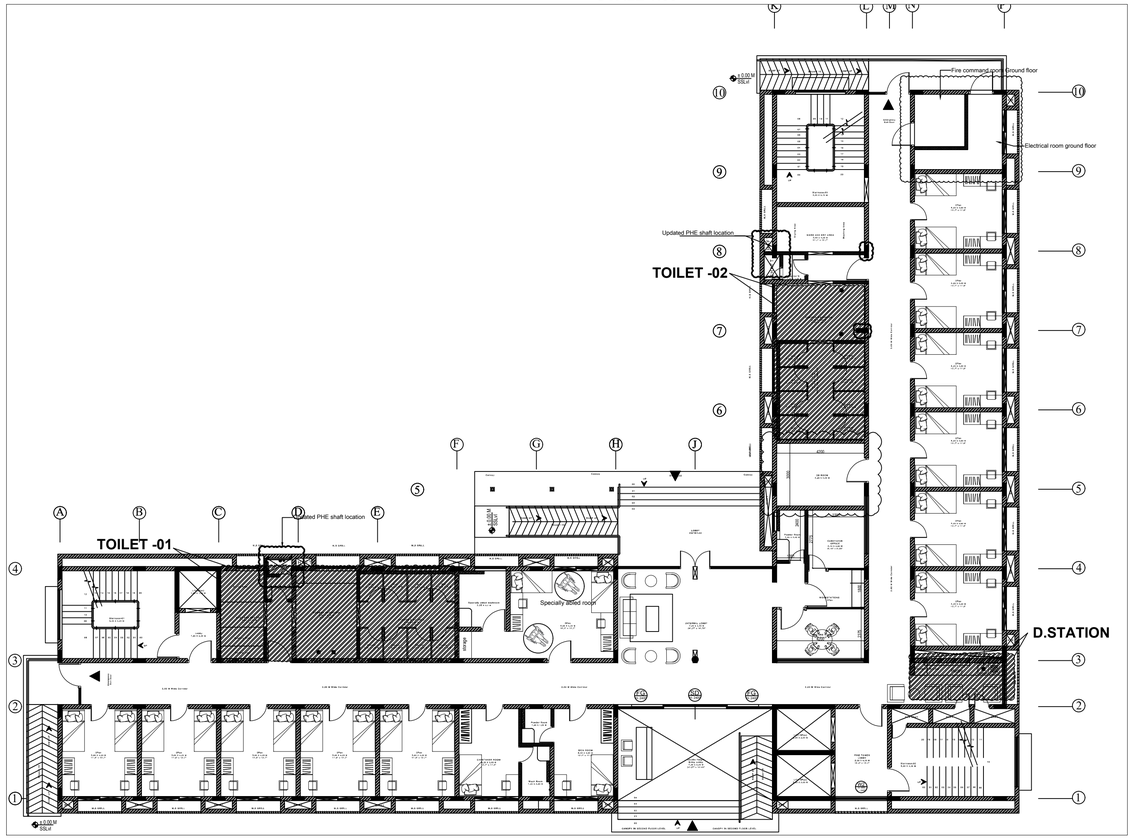
DRAWING TITLE:

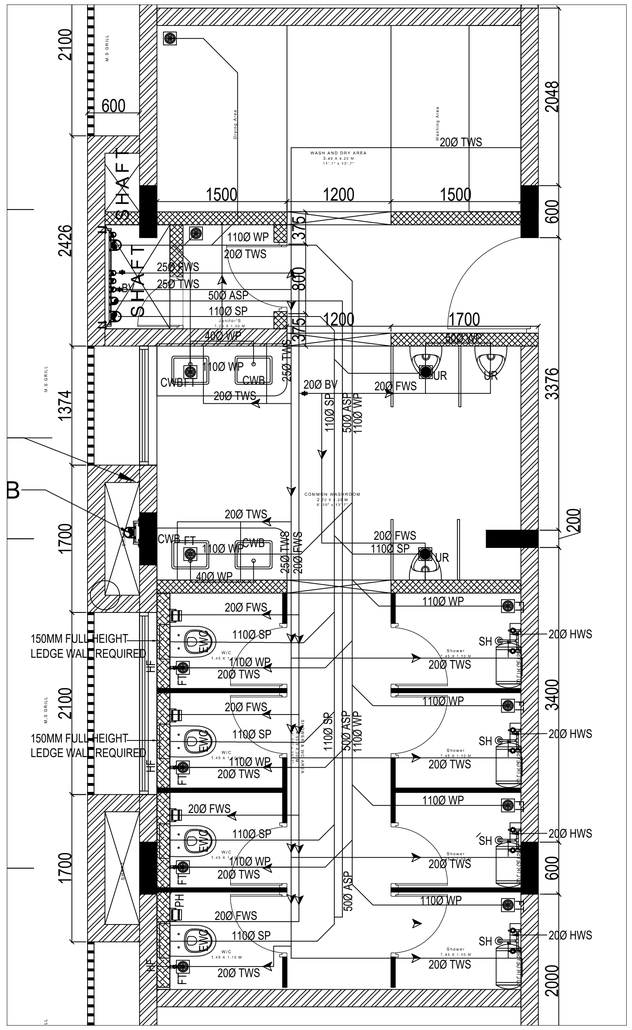
TERRACE FLOOR PHE SERVICES LAYOUT

SCALE	: 1: 100 (A2)	REVISION NO:	ORIENTATION:
DATE		R0	
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO:	
		SL-BIRLA-HB-TD-PL-003	

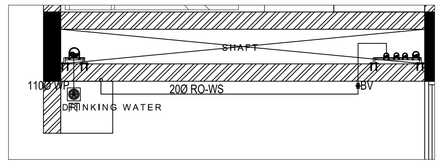


TOILET -01 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50





TOILET -02 DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50



DRINKING STATION DRAINAGE AND WATER SUPPLY LAYOUT
SCALE 1:50

LEGEND		
Sl.No.	ABBREVIATION	DESCRIPTION
1.	EWC	EUROPEAN WATER CLOSET
2.	CWB	COUNTER WASH BASIN
3.	SH	SHOWER
4.	UR	URINAL
5.	FT	P-TRAP
6.	BV	BALL VALVE
7.	TWS	TREATED WATER SUPPLY
8.	HWS	HOT WATER SUPPLY
9.	HWR	HOT WATER RETURN
10.	FWS	FLUSH WATER SUPPLY
11.	TWS	TREATED WATER SUPPLY PRM LINE
12.	FWS	FLUSH WATER SUPPLY PRM LINE
13.	SP	SOIL PIPE
14.	WP	WASTE PIPE
15.	ASP	ANTI SYPHONAGE PIPE

KEY PLAN

GENERAL NOTES:
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ARCHITECTURAL REVISIONS:

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PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	19-02-2026	TENDER DRAWING.	
R1	23-03-2026	TENDER DRAWING. (HEAT PUMP SYSTEM FOR HOT WATER HAS BEEN ELIMINATED, ELECTRIC WATER HEATER IS BEING PROVIDED AS INSTRUCTED BY CLIENT)	

JOB TITLE : PROPOSED BOYS HOSTEL -MESRA

CLIENT:

CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

ARCHITECTS :

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: **TENDER DRAWING**

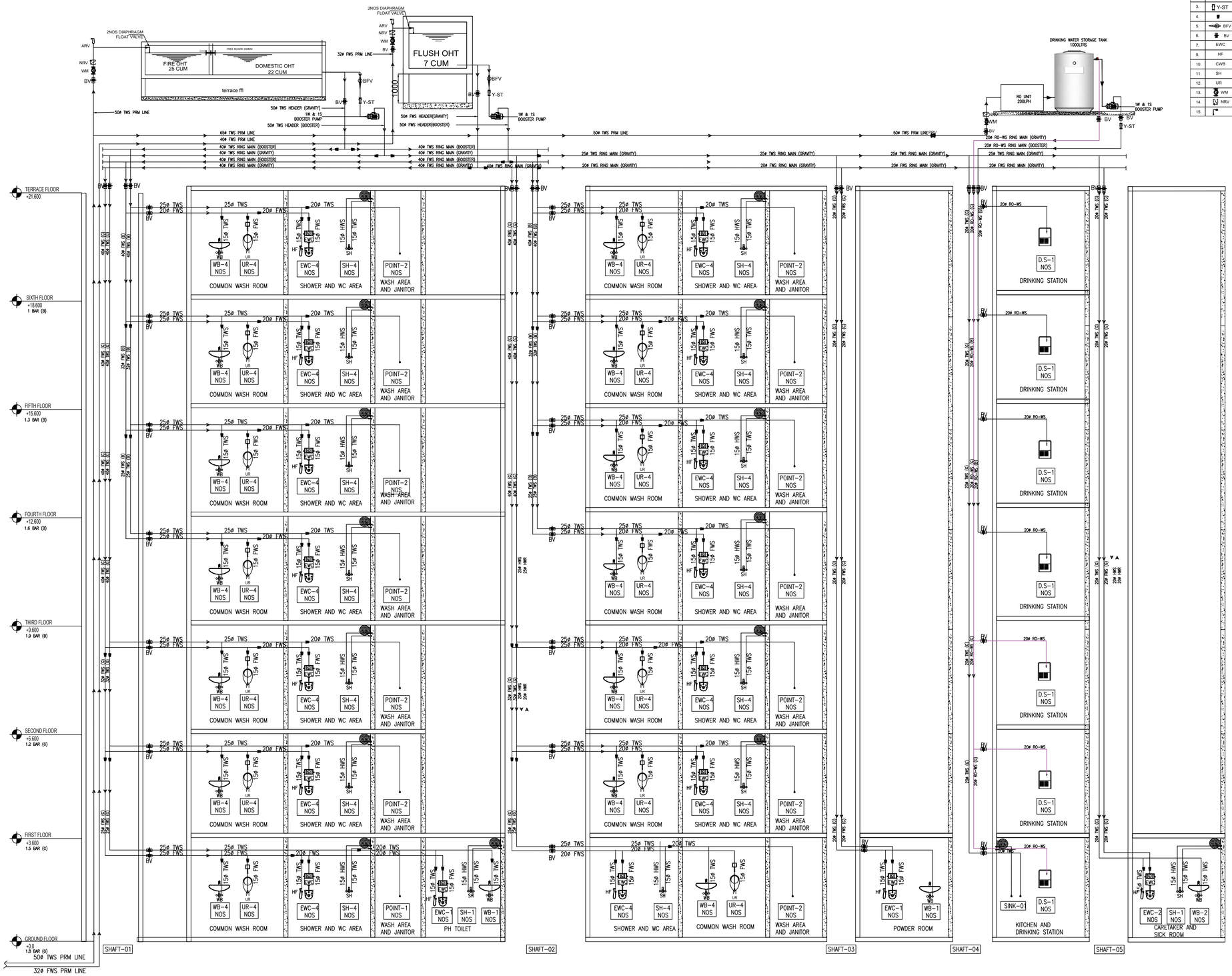
SEAL:

APPROVED BY:

PLUMBING DRAWING

DRAWING TITLE:
FIRST & TYPICAL FLOOR DRAINAGE AND WATER SUPPLY ETD LAYOUT

SCALE	: 1: 50 (A2)	REVISION NO:	ORIENTATION:
DATE	: 19.02.2026	R0	
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO: SL-BIRLA-HB-TD-PL-002	



LEGEND		
Sl No.	ABBREVIATION	DESCRIPTION
1.	TWS	TREATED WATER SUPPLY
2.	FWS	FLUSH WATER SUPPLY
3.	Y-ST	Y-STRAINER
4.		REDUCER
5.	BFV	BUTTERFLY VAVE
6.	BV	BALL VALVE
7.	EWC	EUROPEAN WATER CLOSET
9.	HF	HEALTH FAUCET
10.	CWB	COUNTER WASH BASIN
11.	SH	SHOWER
12.	UR	URINAL
13.	WM	WATER METER
14.	NRV	NON RETURN VALVE
15.		FLOAT VALVE

KEY PLAN

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ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	19-02-2026	TENDER DRAWING.	
R1	23-03-2026	TENDER DRAWING. (HEAT PUMP SYSTEM FOR HOT WATER HAS BEEN ELIMINATED, ELECTRIC WATER HEATER IS BEING PROVIDED AS INSTRUCTED BY CLIENT)	

JOB TITLE : PROPOSED BOYS HOSTEL -MESRA

CLIENT:

CLIENT — **Birla Institute of Technology**, Mesra,Ranchi(India)-835215

ARCHITECTS :

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: **TENDER DRAWING**

SEAL:

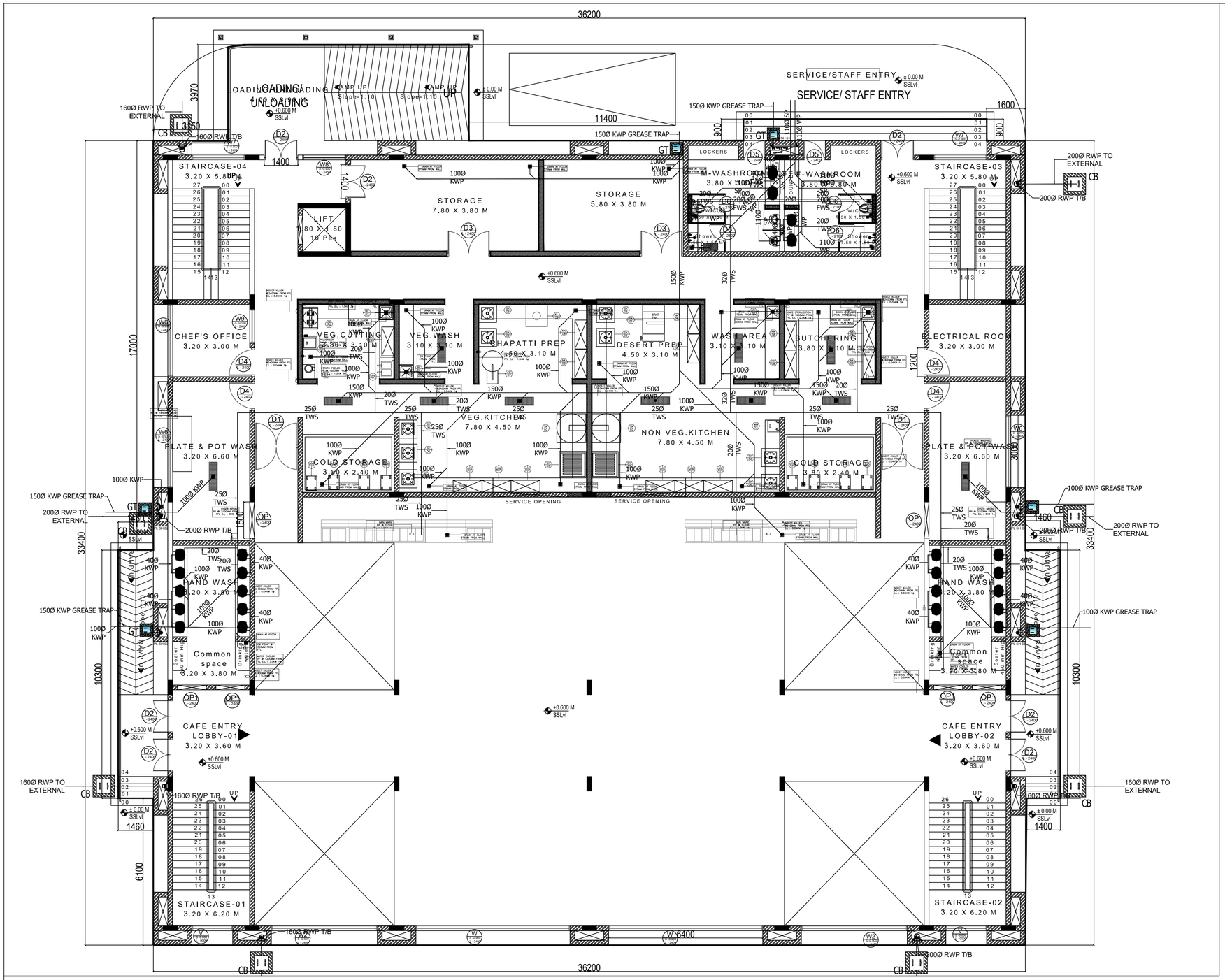
APPROVED BY:

PLUMBING DRAWING

DRAWING TITLE:

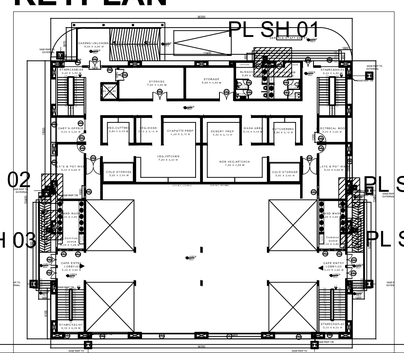
WATER SUPPLY SCHEMATIC LAYOUT

SCALE : 1: 100 (A2)	REVISION NO:	ORIENTATION:
DATE	R0	
DESIGNED BY		
DEALT BY		
CHECKED BY	DRAWING NO:	
	SL-BIRLA-HB-TD-PL-004	



LEGEND		
Sl No.	ABBREVIATION	DESCRIPTION
1.	SP	SOIL PIPE
2.	WP	WASTE PIPE
3.	TWS	TREATED WATER SUPPLY
4.	FWS	FLUSH WATER SUPPLY
5.	ASP	ANTI SIPHONAGE LINE
6.	RWP	RAIN WATER PIPE
7.	GT	FROM ABOVE
9.	SWH	SEWAGE MANHOLE
10.	RWH	RAINWATER MANHOLE
11.	F/A	FROM ABOVE
12.	T/B	TO BELOW
13.	T/A	TO ABOVE
14.	BOD	BOTTOM OF DRAIN
15.	BOC	BOTTOM OF CUTOUT
16.	BOP	BOTTOM OF PIPE
17.	TYP	TYPICAL

KEYPLAN



KEY PLAN

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ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:
BITS MESRA CAFETERIA

JOB TITLE :
PROPOSED BOYS FOOD COURT

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE:
TENDER DRAWING

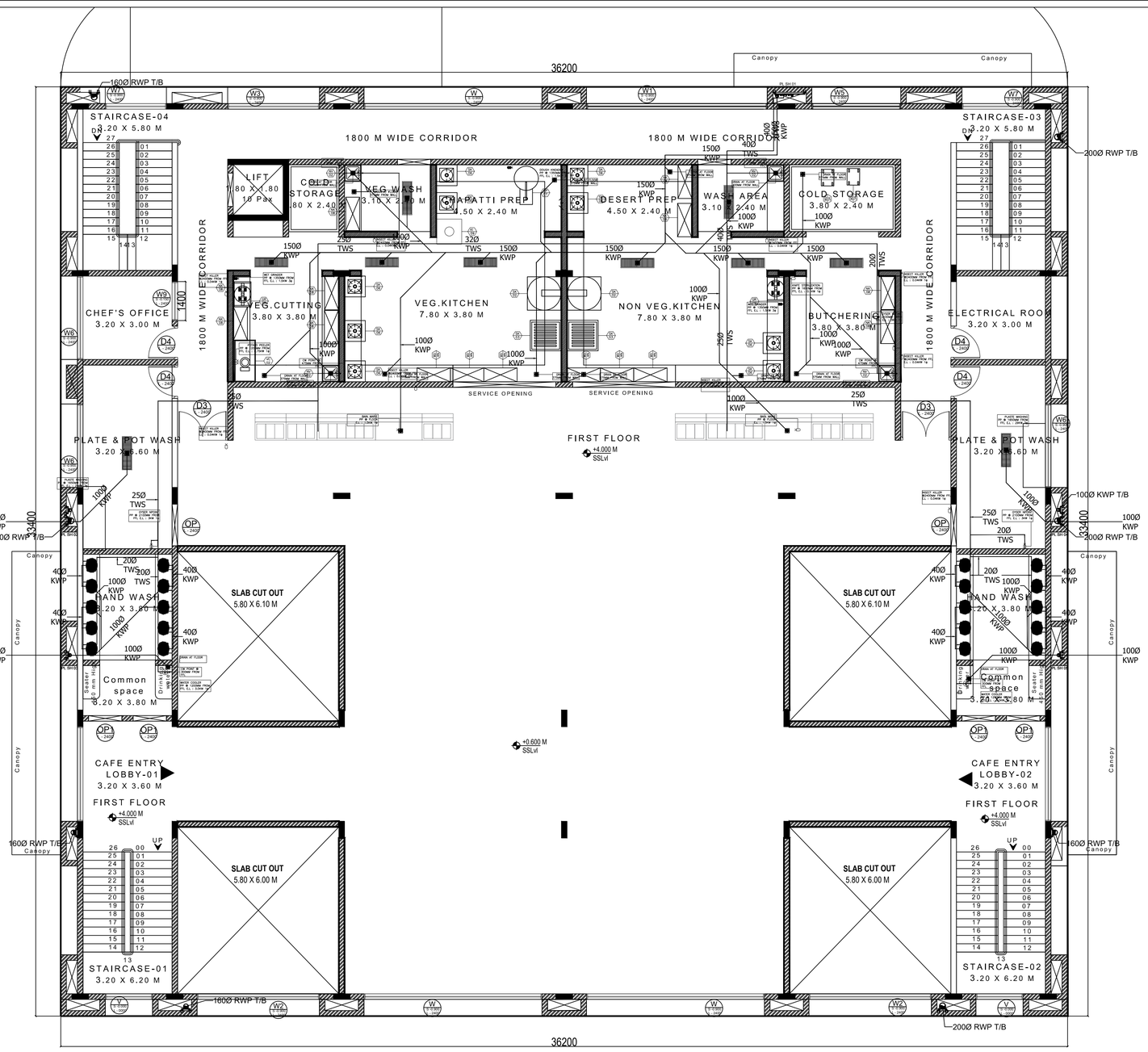
SEAL:

APPROVED BY:

PLUMBING DRAWING

DRAWING TITLE:
PHE SERVICES AT GROUND FLOOR

SCALE : 1: 50 (A2)	REVISION NO:
DATE	R0
DESIGNED BY	ORIENTATION:
DEALT BY	
CHECKED BY	DRAWING NO: **SL-BITS-TD-PL-001**



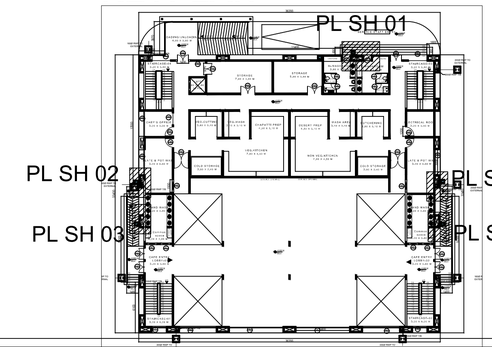
FF
BITS CAFE

First Floor_BITS CAFE -ARCHITECTURAL LAYOUT PLAN

SCALE 1:100

LEGEND		
Sl No.	ABBREVIATION	DESCRIPTION
1.	SP	SOIL PIPE
2.	WP	WASTE PIPE
3.	TWS	TREATED WATER SUPPLY
4.	FWS	FLUSH WATER SUPPLY
5.	ASP	ANTI SIPHONAGE LINE
6.	RWP	**RAIN WATER PIPE**
7.	GT	FROM ABOVE
9.	SWH	SEWAGE MANHOLE
10.	RWH	RAINWATER MANHOLE
11.	F/A	FROM ABOVE
12.	T/B	TO BELOW
13.	T/A	TO ABOVE
14.	BOD	BOTTOM OF DRAIN
15.	BOC	BOTTOM OF CUTOUT
16.	BOP	BOTTOM OF PIPE
17.	TYP	TYPICAL

KEYPLAN



KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MM.
2. FOLLOW WRITTEN DIMENSIONS ONLY.
3. ANY DISCREPANCY NOTED IN THE DRG. SHOULD BE BROUGHT TO THE NOTICE OF M&E DEPT PRIOR TO EXECUTION.
4. THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.
5. MAINTAIN COLOUR CODING OF CONDUIT AS INDICATED TECHNICAL SPECIFICATION

ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:
BITS MESRA CAFETERIA

JOB TITLE :
PROPOSED BOYS FOOD COURT

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE:
TENDER DRAWING

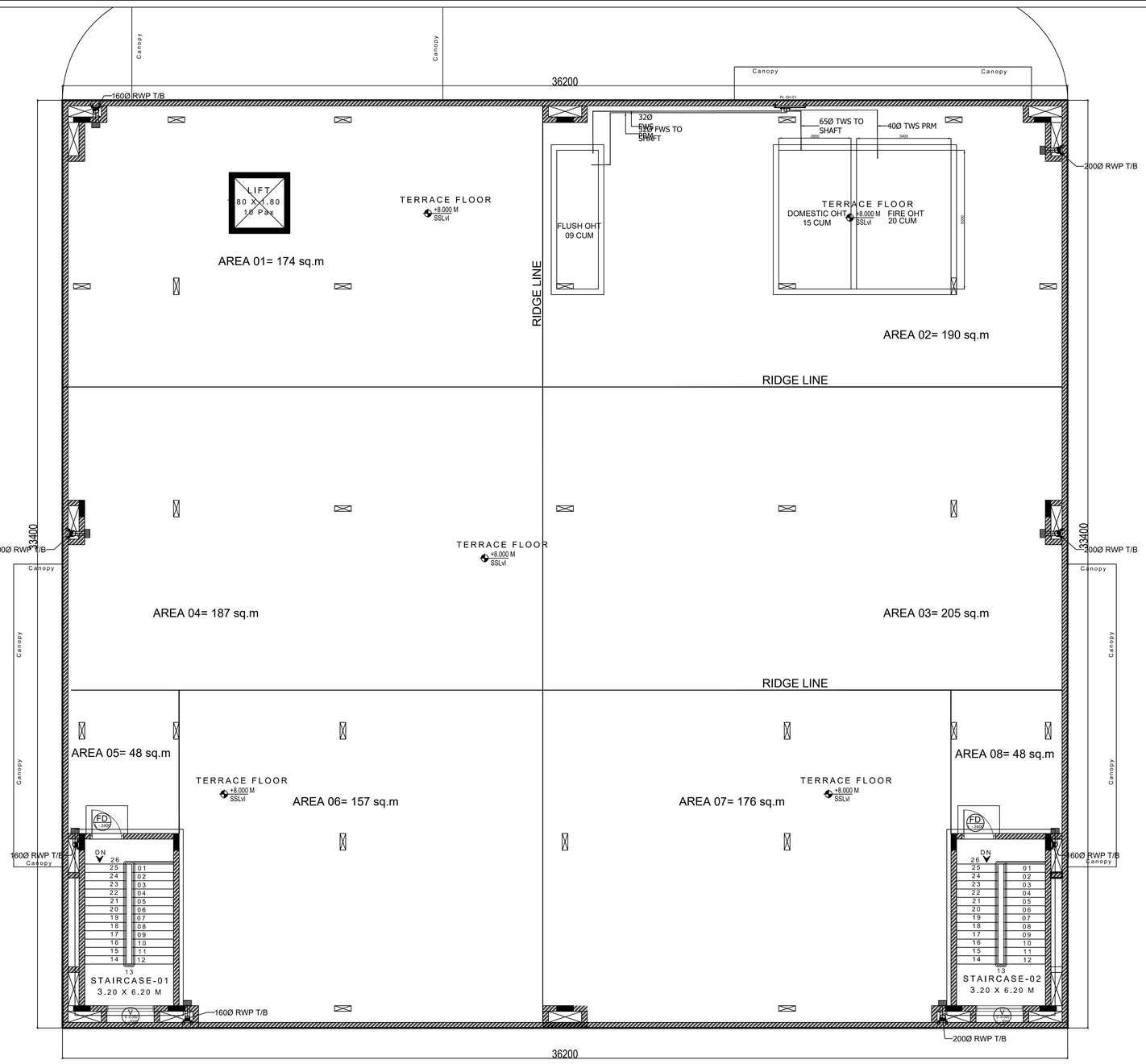
SEAL:

APPROVED BY:

PLUMBING DRAWING

DRAWING TITLE:
PHE SERVICES AT FIRST FLOOR

SCALE	: 1: 50 (A2)	REVISION NO: R0
DATE		ORIENTATION:
DESIGNED BY		
DEALT BY		
CHECKED BY		DRAWING NO: **SL-BITS-TD-PL-002**



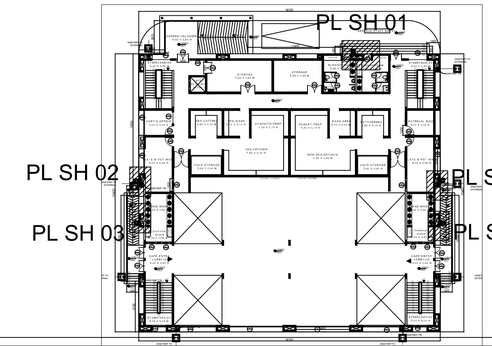
TF
BITS CAFE

Terrace Floor_BITS CAFE -BLOCK WORK LAYOUT PLAN

SCALE 1:100

LEGEND		
Sl No.	ABBREVIATION	DESCRIPTION
1.	SP	SOIL PIPE
2.	WP	WASTE PIPE
3.	TWS	TREATED WATER SUPPLY
4.	FWS	FLUSH WATER SUPPLY
5.	**ASP**	ANTI SIPHONAGE LINE
6.	**RWP**	**RAIN WATER PIPE**
7.	GT	FROM ABOVE
9.	SWH	SEWAGE MANHOLE
10.	RWH	RAINWATER MANHOLE
11.	F/A	FROM ABOVE
12.	T/B	TO BELOW
13.	**T/A**	TO ABOVE
14.	**BOD**	BOTTOM OF DRAIN
15.	**BOC**	BOTTOM OF CUTOUT
16.	**BOP**	BOTTOM OF PIPE
17.	**TYP**	TYPICAL

KEYPLAN



KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MM.
2. FOLLOW WRITTEN DIMENSIONS ONLY.
3. ANY DISCREPANCY NOTED IN THE DRG. SHOULD BE BROUGHT TO THE NOTICE OF M&E DEPT PRIOR TO EXECUTION.
4. THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.
5. MAINTAIN COLOUR CODING OF CONDUIT AS INDICATED TECHNICAL SPECIFICATION

ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:
BITS MESRA CAFETERIA

JOB TITLE :
PROPOSED BOYS FOOD COURT

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE:
TENDER DRAWING

SEAL:

APPROVED BY:

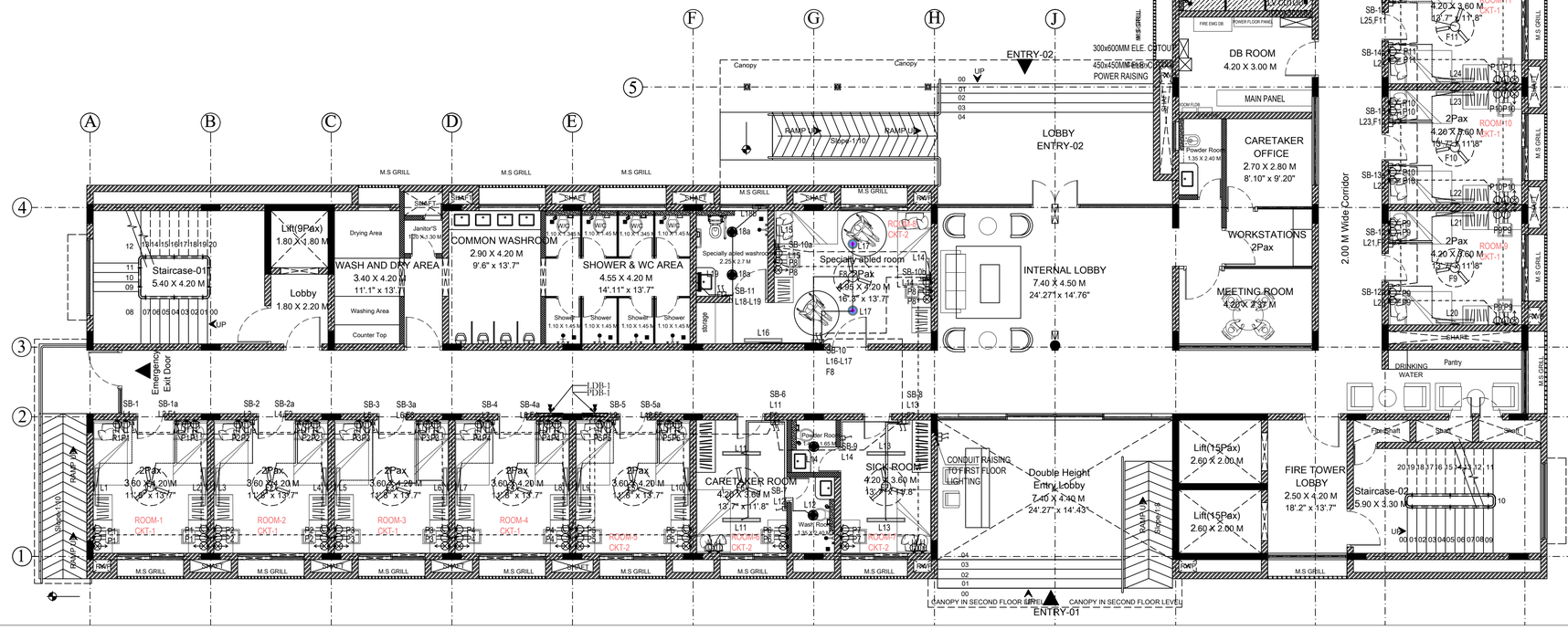
PLUMBING DRAWING

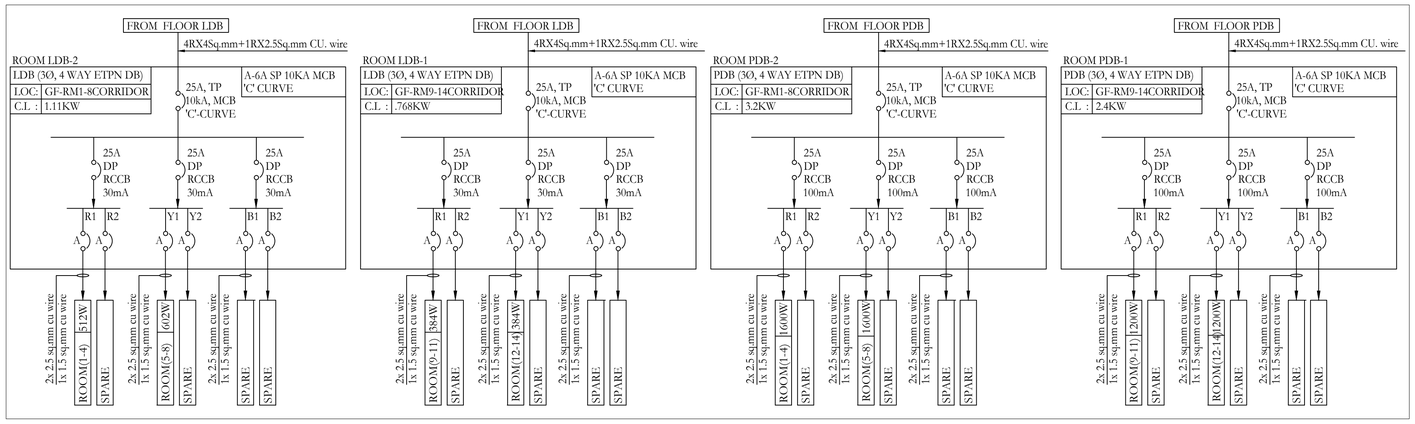
DRAWING TITLE:
PHE SERVICES AT TERRACE FLOOR

SCALE	: 1: 50 (A2)	REVISION NO:
DATE		R0
DESIGNED BY		ORIENTATION:
DEALT BY		
CHECKED BY		DRAWING NO: **SL-BITS-TD-PL-003**

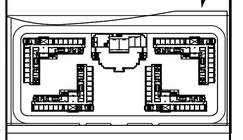
Electrical drawing Set

GROUND FLOOR BOYS HOSTEL





KEY PLAN



ELECTRICAL REVISIONS:

REV NO	DATE	DESCRIPTION	APPROVED BY
R0	06.02.26	APPROVAL DWG	APPANNA
R1	04.03.26	COMMENTS UPDATED APPROVEL DWG	APPANNA
R2	11.03.26	INCOMING CABLE UPDATED IN DB	APPANNA

CLIENT:

Birla Institute of Technology Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

ELECTRICAL DRAWING

DRAWING TITLE:

TYPICAL FLOOR ROOMS LIGHTING & POWER LAYOUT

SCALE	: 1: 120(A1)
DATE	
DESIGNED BY	
DEALT BY	
CHECKED BY	

REVISION NO: R0 R1 R2

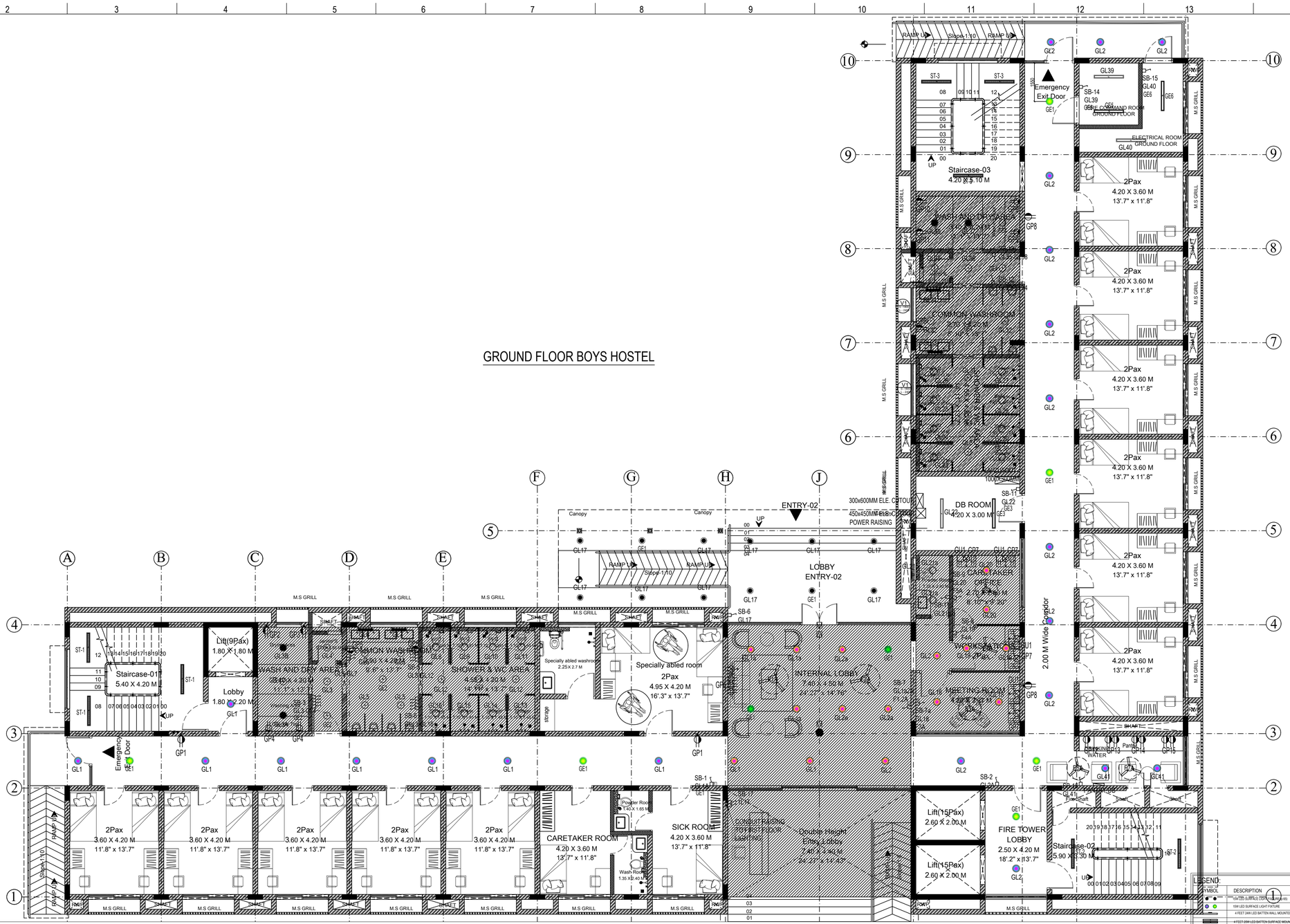
ORIENTATION: NORTH

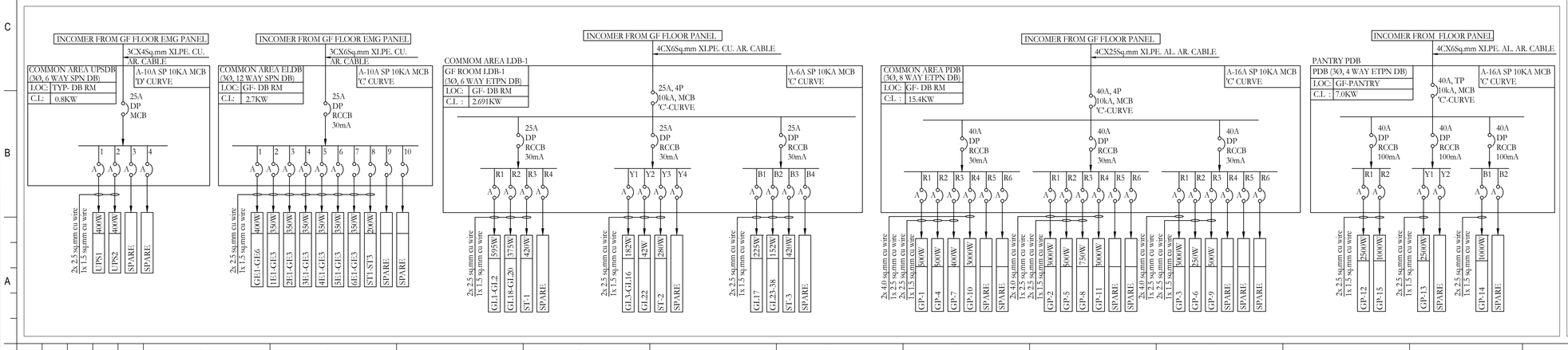
DRAWING NO: BIT-BH-EE-001

LEGEND:

SYMBOL	DESCRIPTION
	10W LED SURFACE LIGHT FIXTURE(Ip 65)
	10W LED SURFACE LIGHT FIXTURE
	4 FEET 24W LED BATTEN WALL MOUNTED LIGHT FIXTURE
	4 FEET 20W LED BATTEN SURFACE MOUNTED LIGHT FIXTURE
	4 FEET 20W LED BATTEN SURFACE MOUNTED LIGHT FIXTURE WITH SENSOR FOR STAIRCASE
	10W 2 FEET WALL MOUNTED MIRROR LIGHT FIXTURE
	15W LED RECESS LIGHT FIXTURE
	12W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	12W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET WITH SENSOR
	12W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	12W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	7W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	7W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	18W LED RECESS MOUNTED DOWN LIGHT FIXTURE
	1200MM SWEEP 3 BLADE CEILING FAN POINT
	900MM SWEEP 3 BLADE CEILING FAN POINT
	EXHAUST FAN POINT FOR TOILET
	1 NO OF 6A SOCKET CONTROLLED BY 1 NO OF 6A SP SWITCH ON RAW POWERPOINT
	1 NO OF 16A SOCKET CONTROLLED BY 1 NO OF 16A SP SWITCH ON RAW POWERPOINT
	2 NO OF 6A SOCKET CONTROLLED BY 2 NO OF 6A SP SWITCH ON UPS POWER WITH 1 NO OF DATA POINT
	2 NO OF 6A SOCKET CONTROLLED BY 2 NO OF 6A SP SWITCH ON UPS POWER
	1NO. 6A, 3 PIN SOCKET CONTROLLED BY 1NO. 6A SP SWITCH (3M) WITH GI BOX (UPS) 1NO. OF 6A, 3 PIN SOCKET CONTROLLED BY 2NO. OF 6A SP SWITCH (3M)RAW POWER) 1NO. OF RJ 45 INFORMATION OUT LET WITH OUT BOX AND DUAL PHASE PLATE WITH GI BOX (DATA)
	1NO. 6A, 3 PIN SOCKET CONTROLLED BY 1NO. 6A SP SWITCH (3M) WITH GI BOX (UPS) 2NO. OF 6A, 3 PIN SOCKET CONTROLLED BY 2NO. OF 6A SP SWITCH (3M)RAW POWER) 1NO. OF RJ 45 INFORMATION OUT LET WITH OUT BOX AND DUAL PHASE PLATE WITH GI BOX (DATA) TV OUTLET
	6A SP SWITCH
	32MM CONDUIT DROP & RAISER
	100x100x45MM FLOOR JUNCTION BOX
	20MM F FRLS PVC CONDUIT CONCEALED IN CEILING FOR DATA
	20MM F FRLS PVC CONDUIT CONCEALED IN CEILING FOR LIGHTING LOOP
	25MM F FRLS PVC CONDUIT CONCEALED IN CEILING FOR LIGHTING CIRCUIT
	25MM F FRLS PVC CONDUIT CONCEALED IN FLOOR FOR RAW POWER CIRCUIT

GROUND FLOOR BOYS HOSTEL

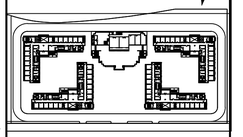




LEGEND

SYMBOL	DESCRIPTION
	VATEL SUPPLY CENTRAL UNIT
	15W LED SURFACE LIGHT FIXTURE
	4 FEET 24W LED BATTEN WALL MOUNTED LIGHT FIXTURE
	4 FEET 20W LED BATTEN SURFACE MOUNTED LIGHT FIXTURE
	4 FEET 20W LED BATTEN SURFACE MOUNTED LIGHT FIXTURE WITH SENSOR FOR STAIRCASE
	15W 2 FEET WALL MOUNTED MIRROR LIGHT FIXTURE
	15W LED RECESS LIGHT FIXTURE
	12W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	12W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET WITH SENSOR
	12W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	12W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	7W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	7W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	18W LED RECESS MOUNTED DOWN LIGHT FIXTURE
	1200MM SWEEP 3 BLADE CEILING FAN POINT
	900MM SWEEP 3 BLADE CEILING FAN POINT
	EXHAUST FAN POINT FOR TOILET
	1 NO OF 6A SOCKET CONTROLLED BY 1 NO OF 6A SP SWITCH ON RAW POWERPOINT
	1 NO OF 16A SOCKET CONTROLLED BY 1 NO OF 16A SP SWITCH ON RAW POWERPOINT
	2 NO OF 6A SOCKET CONTROLLED BY 2 NO OF 6A SP SWITCH ON UPS POWER WITH 1 NO OF CAT-6 POINT
	2 NO OF 6A SOCKET CONTROLLED BY 2 NO OF 6A SP SWITCH ON UPS POWER
	1NO 6A, 3 PIN SOCKET CONTROLLED BY 1NO. 6A SP SWITCH (3M) WITH GI BOX (UPS) 1NO. OF 6A, 3 PIN SOCKET CONTROLLED BY 1NO. OF 6A SP SWITCH (3M)(RAW POWER) 1NO. OF RJ 45 INFORMATION OUT LET WITH OUT BOX AND DUAL PHASE PLATE WITH GI BOX (DATA)
	2NO 6A, 3 PIN SOCKET CONTROLLED BY 1NO. 6A SP SWITCH (3M) WITH GI BOX (UPS) 2NO. OF 6A, 3 PIN SOCKET CONTROLLED BY 2NO. OF 6A SP SWITCH (3M)(RAW POWER) 2NO. OF RJ 45 INFORMATION OUT LET WITH OUT BOX AND DUAL PHASE PLATE WITH GI BOX (DATA) TV OUTLET
	6A SP SWITCH
	32MM CONDUIT DROP & RAISER
	100x100x45MM FLOOR JUNCTION BOX
	25MM 4 FRLS PVC CONDUIT CONCEALED IN CEILING FOR DATA
	20MM 4 FRLS PVC CONDUIT CONCEALED IN CEILING FOR LIGHTING LOOP
	25MM 4 FRLS PVC CONDUIT CONCEALED IN CEILING FOR LIGHTING CIRCUIT
	25MM 4 FRLS PVC CONDUIT CONCEALED IN FLOOR FOR RAW POWER CIRCUIT

KEY PLAN



ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	06.02.26	APPROVAL DWG	
R1	04.03.26	COMMENTS UPDATED APPROVEL DWG	

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

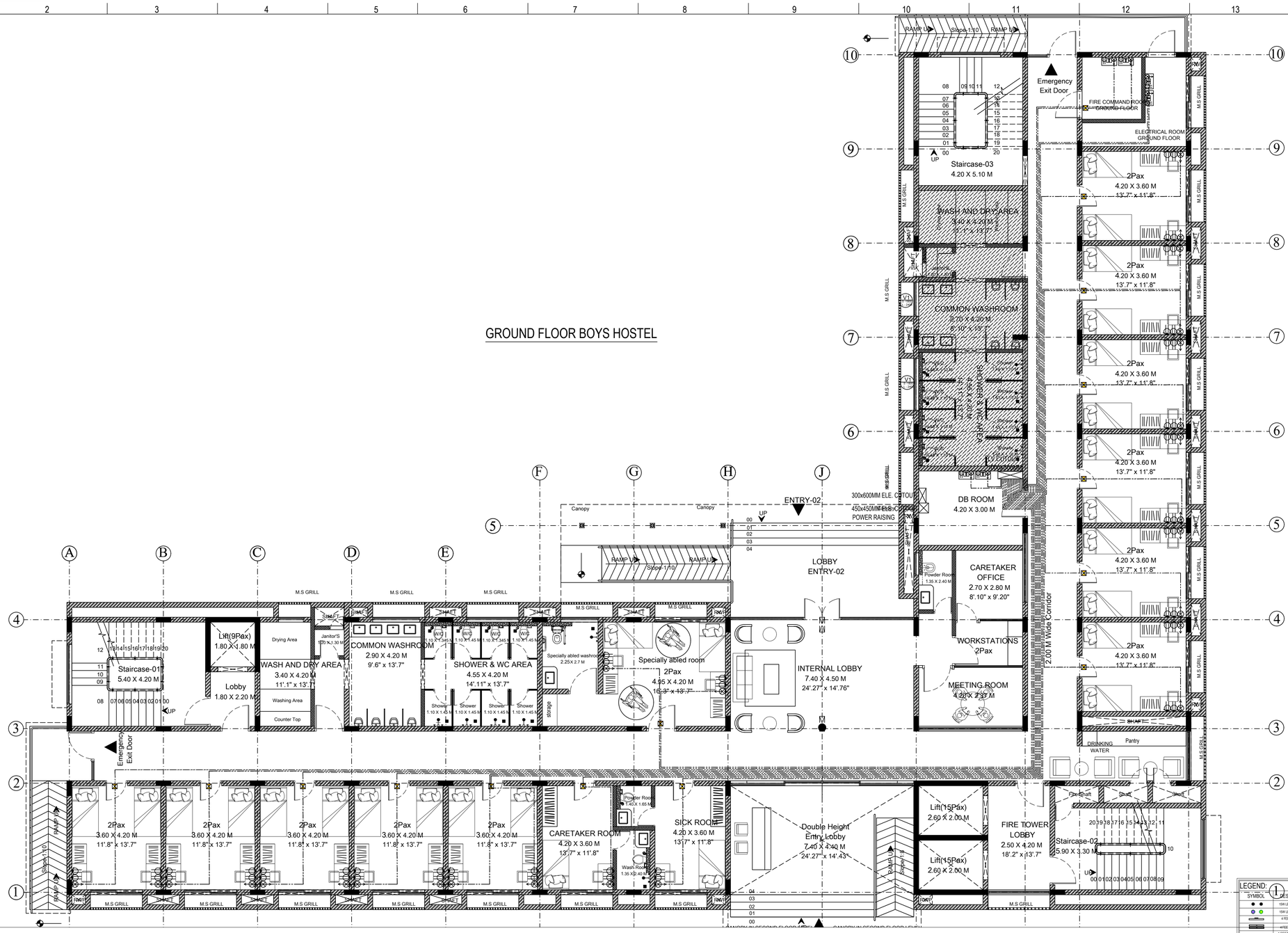
ELECTRICAL DRAWING

DRAWING TITLE:

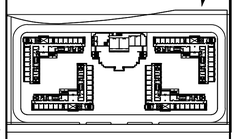
TYPICAL FLOOR COMMON AREA LIGHTING & POWER LAYOUT

SCALE	1: 120(A1)	REVISION NO:					ORIENTATION:	
DATE		R0	R1					
DESIGNED BY								NORTH
DEALT BY								
CHECKED BY		DRAWING NO:						
		BIT-BH-EE-021						

GROUND FLOOR BOYS HOSTEL



KEY PLAN



ELECTRICAL REVISIONS:			
REV NO	DATE	DESCRIPTION	APPROVED BY
R0	06.02.26	APPROVAL DWG	

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

ELECTRICAL DRAWING

DRAWING TITLE:

TYPICAL FLOOR POWER / DATA LAYOUT

SCALE	: 1: 120(A1)	REVISION NO:	ORIENTATION:
DATE		R0	NORTH
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO:	BIT-BH-EE-031

LEGEND:

SYMBOL	DESCRIPTION
	15W LED SURFACE LIGHT FIXTURE(Ip 65)
	15W LED SURFACE LIGHT FIXTURE
	4 FEET 24W LED BATTEN WALL MOUNTED LIGHT FIXTURE
	4 FEET 20W LED BATTEN SURFACE MOUNTED LIGHT FIXTURE
	4 FEET 20W LED BATTEN SURFACE MOUNTED LIGHT FIXTURE WITH SENSOR FOR STAIRCASE
	1200 2 FEET WALL MOUNTED MIRROR LIGHT FIXTURE
	15W LED RECESS LIGHT FIXTURE
	12W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	12W LED SURFACE MOUNTED DOWN LIGHT FIXTURE FOR TOILET WITH SENSOR
	12W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
	12W LED RECESS MOUNTED DOWN LIGHT FIXTURE FOR TOILET
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	1200MM SWEEP 3 BLADE CEILING FAN POINT
	900MM SWEEP 3 BLADE CEILING FAN POINT
	EXHAUST FAN POINT FOR TOILET
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	1 NO OF 16A SOCKET CONTROLLED BY 1 NO OF 16A SP SWITCH ON RAW POWERPOINT
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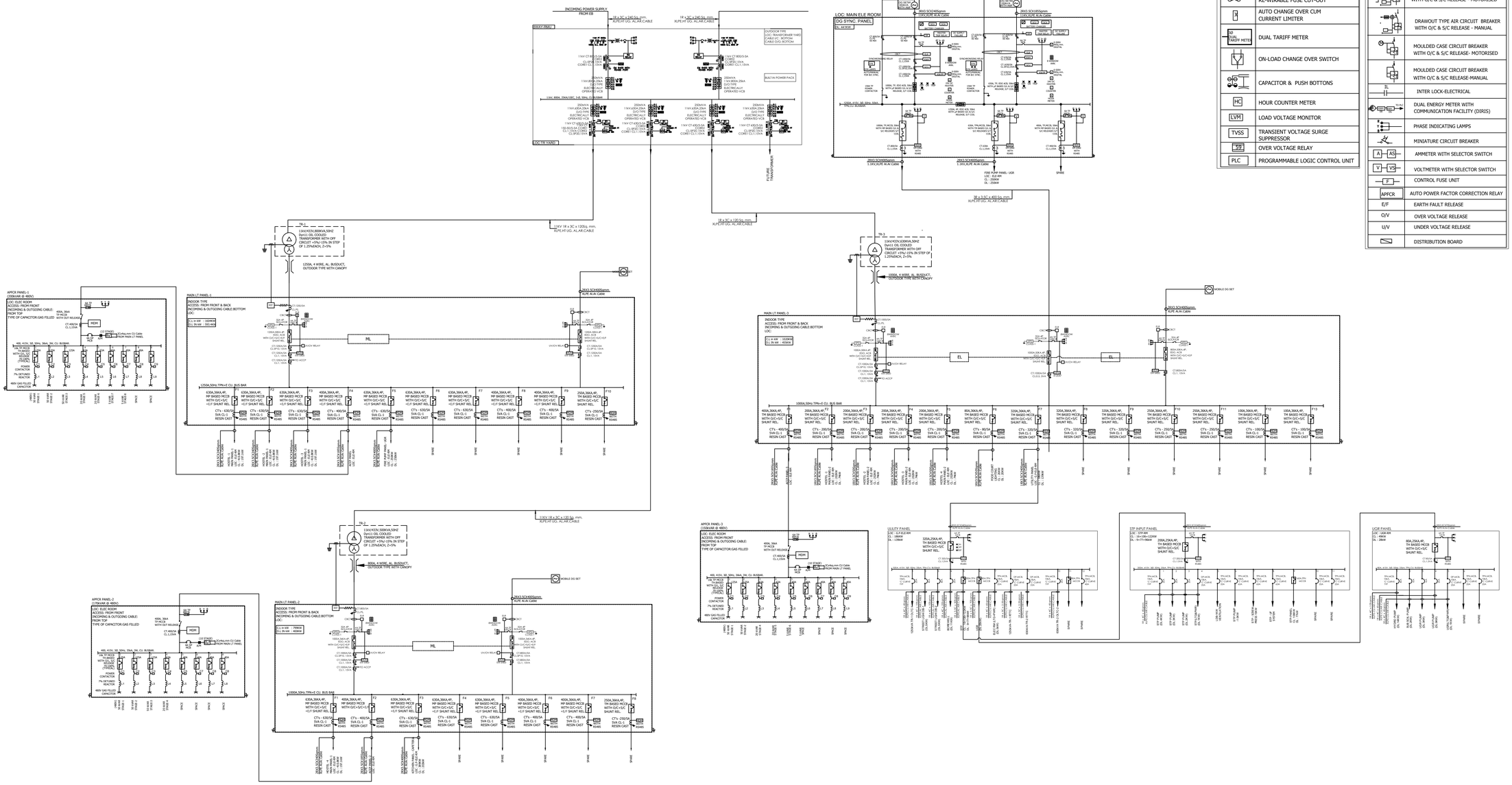
	20MM F RRLS PVC CONDUIT CONCEALED IN CEILING FOR DATA
	20MM F RRLS PVC CONDUIT CONCEALED IN CEILING FOR LIGHTING LOOP
	25MM F RRLS PVC CONDUIT CONCEALED IN CEILING FOR LIGHTING CIRCUIT
	25MM F RRLS PVC CONDUIT CONCEALED IN FLOOR FOR RAW POWER CIRCUIT

POWER SUPPLY DETAILS:			
DESCRIPTION	FROM	TO	CABLE SIZE
800KVA TRANSFORMER	MAIN LT PANEL-1	HOSTEL BLOCK-1 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-2 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-3 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
500KVA TRANSFORMER	MAIN LT PANEL-2	HOSTEL BLOCK-4 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
		KITCHEN PANEL - CAFETERIA	2RX3.5CX400Sqmm XLPE Al.Ar.Cable
630KVA TRANSFORMER	MAIN LT PANEL-3	HOSTEL BLOCK-1 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-2 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-3 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-4 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable

LEGEND	
SYMBOL	DESCRIPTION
	DIESEL GENERATOR SET
	DISTRIBUTION TRANSFORMER
	VACUUM CIRCUIT BREAKER
	AIR CIRCUIT BREAKER
	MOTORISED MOULDED CASE CIRCUIT BREAKER
	MOULDED CASE CIRCUIT BREAKER
	MINIATURE CIRCUIT BREAKER
	MOTOR PROTECTION CIRCUIT BREAKER (MPCB)
ELR	EARTH LEAKAGE RELAY / DEVICE
CT'S	CURRENT TRANSFORMER
MULTI DATA METER	MULTI DATA METER
MFM	MULTI FUNCTION METER
R Y B	LED INDICATOR LAMP SET
3Ø	kWH METER
	AUTO TRANSFER SWITCH
FUSE	RE-WIRABLE FUSE CUT-OUT
	AUTO CHANGE OVER CUM CURRENT LIMITER
DUAL TARIFF METER	DUAL TARIFF METER
	ON-LOAD CHANGE OVER SWITCH
	CAPACITOR & PUSH BOTTONS
HC	HOUR COUNTER METER
LVM	LOAD VOLTAGE MONITOR
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
59	OVER VOLTAGE RELAY
PLC	PROGRAMMABLE LOGIC CONTROL UNIT

LEGENDS	
	LOAD BREAK SWITCH
50 / 86	VACUUM CIRCUIT BREAKER - MANUAL
51	IDMTL OVER CURRENT RELAY
51N	IDMTL EARTH FAULT RELAY
94	AUXILIARY PROTECTION RELAY
52X	BREAKER CONTACT MULTIPLY RELAY
86	TRIPPING RELAY
74	TRIP CIRCUIT SUPERVISION RELAY
WTI Alo/Trip	WINDING TEMPERATURE INDICATOR
	POTENTIAL TRANSFORMER
R Y B	LED TYPE PHASE INDICATING LAMPS
	FUSE
	EMERGENCY TRIPPING HANDLE
MI	MECHANICAL INTER LOCK
ELR	EARTH LEAKAGE RELAY WITH CORE BALANCE CURRENT TRANSFORMER
	7% DETUNED SERIES REACTOR
	CAPACITOR
	MINIATURE CIRCUIT BREAKER
3	CURRENT TRANSFORMER (NOS. INDICATE QTY)
OFF ON TRIP	LED TYPE INDICATING LAMPS WITH ILLUMINATED PUSH BUTTONS. R - RED - ON INDICATION G -GREEN - OFF INDICATION A -AMBER - TRIP INDICATION
MFM V A PF KVA KWH	MULTI FUNCTIONING METER WITH DIGITAL OUTPUT
	DRAWOUT TYPE AIR CIRCUIT BREAKER WITH O/C & S/C RELEASE - MOTORISED
	DRAWOUT TYPE AIR CIRCUIT BREAKER WITH O/C & S/C RELEASE - MANUAL
	MOULDED CASE CIRCUIT BREAKER WITH O/C & S/C RELEASE- MOTORISED
	MOULDED CASE CIRCUIT BREAKER WITH O/C & S/C RELEASE-MANUAL
	INTER LOCK-ELECTRICAL
	DUAL ENERGY METER WITH COMMUNICATION FACILITY (DIRIS)
	PHASE INDICATING LAMPS
	MINIATURE CIRCUIT BREAKER
A AS	AMMETER WITH SELECTOR SWITCH
V VS	VOLTMETER WITH SELECTOR SWITCH
F	CONTROL FUSE UNIT
APFCR	AUTO POWER FACTOR CORRECTION RELAY
E/F	EARTH FAULT RELEASE
O/V	OVER VOLTAGE RELEASE
U/V	UNDER VOLTAGE RELEASE
	DISTRIBUTION BOARD

:- LEGEND :-	
GCU	GENERATOR CONTROL UNIT
ELR	EARTH LEAKAGE RELAY
REF	RESTRICTED EARTH FAULT RELAY
DCA	DC AMMETER
DCV	DC VOLT METER
86	MASTER TRIPPING RELAY
95	TRIP CIRCUIT SUPER VISION RELAY
VIP 35	SELF POWERED O/C, E/F RELAY
A/M	AUTO/MANUAL SELECTOR SWITCH
	MOTOR PROTECTION CIRCUIT BREAKER
R Y B	LED TYPE PHASE INDICATING LAMPS
	FUSE
	EMERGENCY TRIPPING HANDLE
MI	MECHANICAL INTER LOCK
CBCT ELR	EARTH LEAKAGE RELAY WITH CORE BALANCE CURRENT TRANSFORMER
	7% DETUNED SERIES REACTOR
	CAPACITOR
	MINIATURE CIRCUIT BREAKER
3	CURRENT TRANSFORMER (NOS. INDICATE QTY)
OFF ON TRIP	LED TYPE INDICATING LAMPS WITH ILLUMINATED PUSH BUTTONS. R - RED - ON INDICATION G -GREEN - OFF INDICATION A -AMBER - TRIP INDICATION
LM / DLM	LOAD MANAGER/DIGITAL LOAD MANAGER WITH RS485 PORT
EM	DIGITAL ENERGY METERS
ELR	EARTH LEAKAGE RELAY
RPR	REVERSE POWER RELAY
A.V.F	AMMETER, VOLTMETER, FREQUENCY METER
KW/KWH	KILO WATT/KILL WATT HOUR METER
V	VOLTMETER WITH BUILT IN SELECTOR SWITCH
A	AMMETER WITH BUILT IN SELECTOR SWITCH



NOTE :

1. UPTO 200A THERMAL MAGNETIC BASED MCCB NEED TO CONSIDER.
2. ABOVE 200A MICRO PROCESS NEED TO BE CONSIDER
3. ANY CLARIFICATION / UPDATION IN SITE TO BE INFORMED AND TAKEN APPROVAL AND THEN PROCEED.
4. MFM AND MDM METER TO USE SIEMENS MAKE :Model: PAC 3200 WITH PORT FOR SCADA BMS INTEGRATION FOR HT AND LT PANEL.

ELECTRICAL REVISIONS:			
REV. NO.	DATE	DESCRIPTION	APPROVED BY
R0	05.03.26	APPROVAL DWG.	AR
R1	23.03.26	APPROVAL DWG. - 2 NOS TRANSFORMER DESIGN AS PER CLIENT INCLUDED 1 NO. 1250KVA CIRCUIT TRANSFORMER	AR
R2	24.03.26	UNDERGROUND RENCHMENT AREA CHANGED AS PER SITE PANEL REMOVED LT HOSING AND APFCR VALUES UPDATED, CABLE SIZE UPDATED	AR
R3	25.03.26	AS PER CLIENT INPUT 11KV TRANS HT CABLE SIZE CHANGED FROM 3C 240 SQMM TO 3C 1200SQMM HT CABLE SIZE UPDATED	AR

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

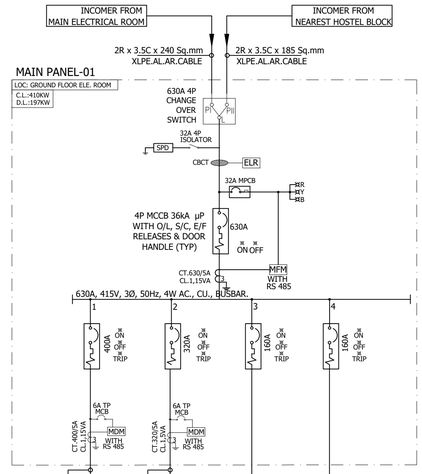
APPROVED BY:

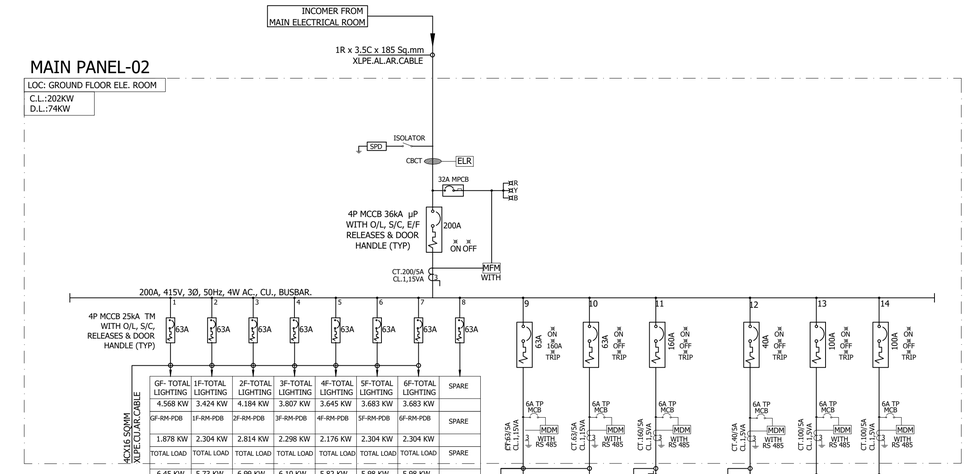
ELECTRICAL DRAWING

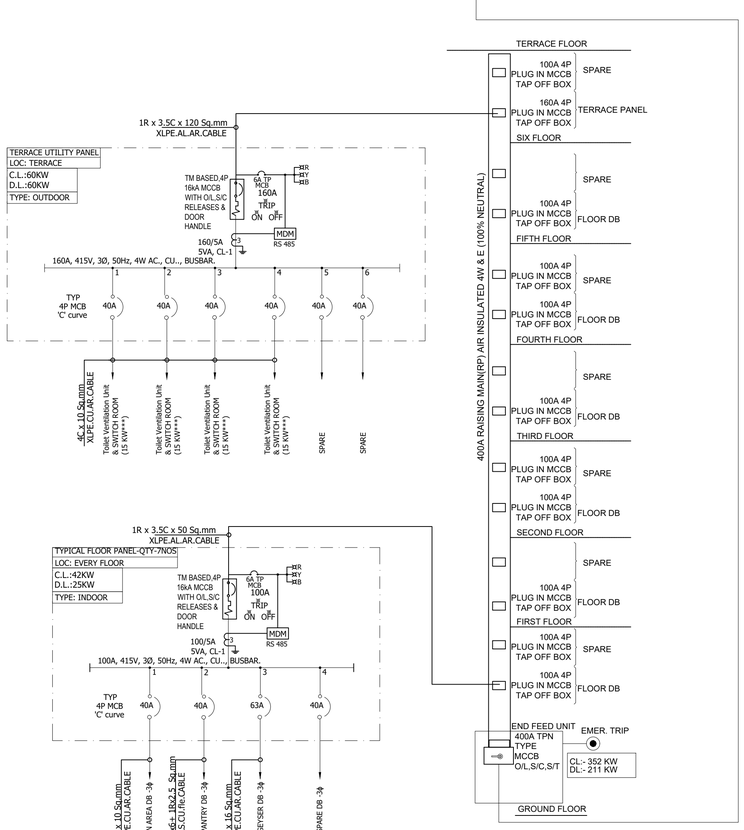
DRAWING TITLE:

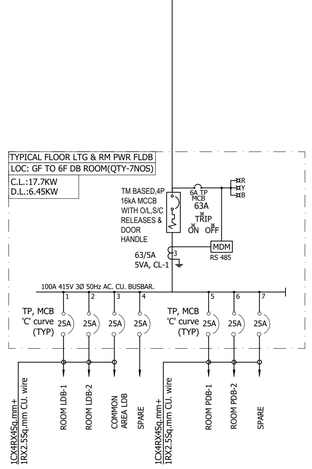
MAIN DISTRIBUTION SCHEMATIC

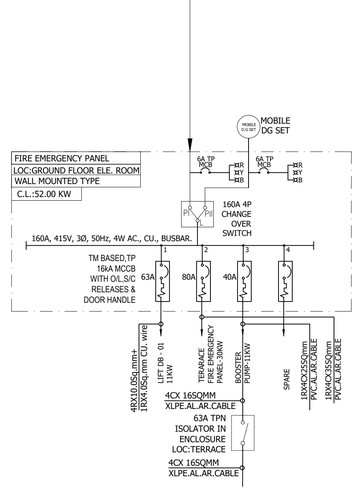
SCALE : NTS(A1)	REVISION NO:					ORIENTATION:
DATE	R0	R1	R2	R3		NORTH
DESIGNED BY						
DEALT BY						
CHECKED BY	DRAWING NO: BT-BH-EE-042					

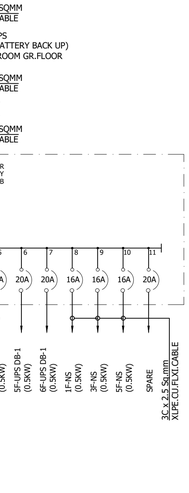












NOTE :

1. UPTO 200A THERMAL MAGNETIC BASED MCCB NEED TO CONSIDER.
2. ABOVE 200A MICRO PROCESS NEED TO BE CONSIDER
3. ANY CLARIFICATION / UPDATION IN SITE TO BE INFORMED AND TAKEN APPROVAL AND THEN PROCEED.
4. MFM AND MDM METER TO USE SIEMENS MAKE :Model: PAC 3200 WITH PORT FOR SCADA BMS INTEGRATION FOR HT AND LT PANEL.

POWER SUPPLY DETAILS:

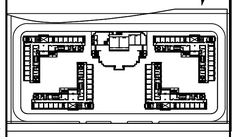
DESCRIPTION	FROM	TO	CABLE SIZE
800KVA TRANSFORMER	MAIN ELECTRICAL PANEL-1	HOSTEL BLOCK-1 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-2 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-3 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
500KVA TRANSFORMER	MAIN ELECTRICAL PANEL-2	HOSTEL BLOCK-4 MAIN PANEL-1	2RX3.5CX240Sqmm XLPE Al.Ar.Cable
		KITCHEN PANEL - CAFETERIA	2RX3.5CX400Sqmm XLPE Al.Ar.Cable
630KVA TRANSFORMER	MAIN ELECTRICAL PANEL-3	HOSTEL BLOCK-1 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-2 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-3 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable
		HOSTEL BLOCK-4 MAIN PANEL-2	1RX3.5CX185Sqmm XLPE Al.Ar.Cable

ELECTRICAL LEGEND

SYMBOLS	DESCRIPTION
	Fixed Type Moulded Case Circuit Breaker
	Motor Protection Circuit Breaker
	Miniature Circuit Breaker
	Isolator
	Current Transformer
	4 Pole Manual Change Over Switch
	Legrand/Eq. Make Multi Data Meter
	Legrand/Eq. Make Multi Data Meter
	Legrand/Eq. Make Multi Data Meter
	Legrand/Eq. Make Multi Data Meter
	Phase Indicating Lamps
	Circuit breaker On / Off / Trip indicating lamps
	Voltmeter with selector switch
	Ammeter with selector switch
	Core Balance Current Transformer
	Earth Leakage Relay With Balance

Note:
1.200A & above MCCB's will be with μP Based releases.
2.Earth Fault (E/F) shall be part of MCCB releases.External separate E/F module not acceptable.
3.Panels to be Fabricate as per CEIG Requirement.
4.250A & above MCCB's will be with 15mA & below with 5mA.

KEY PLAN



ELECTRICAL REVISIONS:

REV NO	DATE	DESCRIPTION	APPROVED BY
R0	04.03.26	APPROVAL DWG.	
R1	11.03.26	AS PER CLIENT INPUT SLD UPDATED	
R2	23.03.26	APPROVAL DWG. 3 NOS TRANSFORMER DESIGN AS PER CLIENT REQUIREMENT WITH OFF CIRCUIT TRANSFORMER	

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

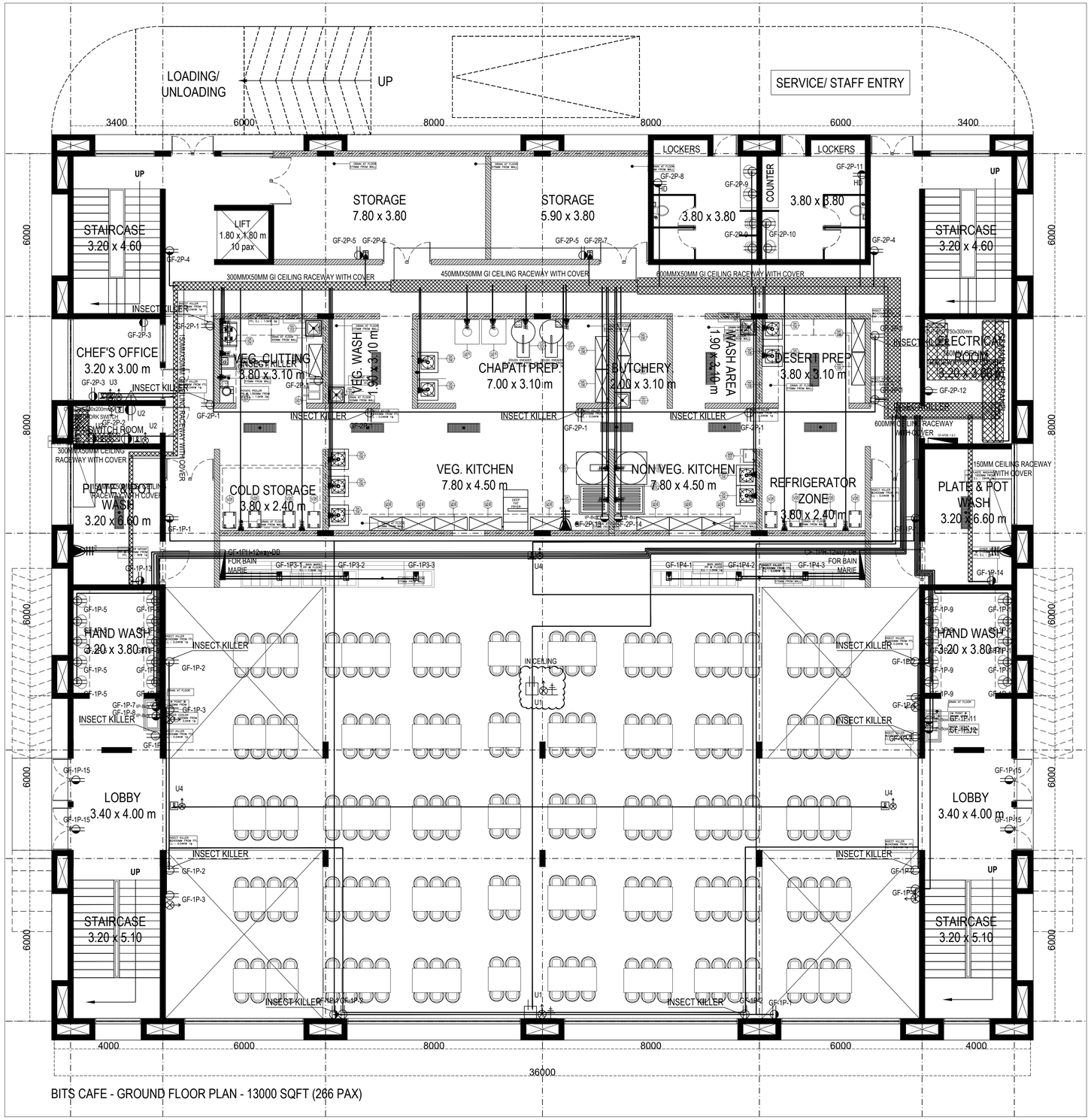
SEAL:

APPROVED BY:

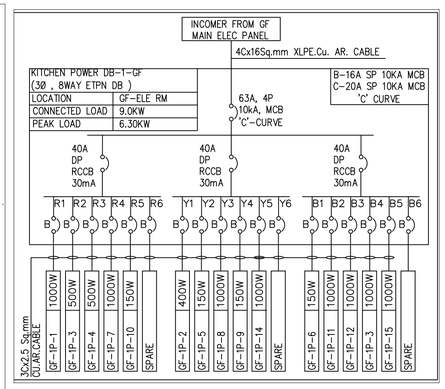
ELECTRICAL DRAWING

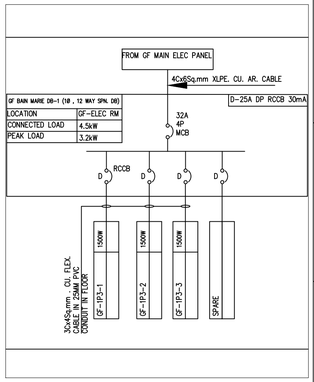
DRAWING TITLE:
POWER DISTRIBUTION SCHEMATIC (HOSTEL BLOCK 1-4 TYP)

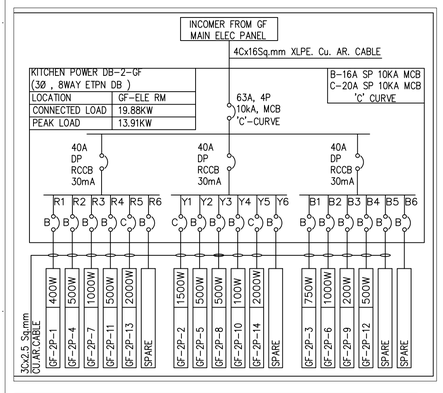
SCALE : 1: 120(A1)	REVISION NO:			ORIENTATION:
DATE	R0	R1	R2	NORTH
DESIGNED BY				
DEALT BY				
CHECKED BY	DRAWING NO: BT-BH-EE-042			

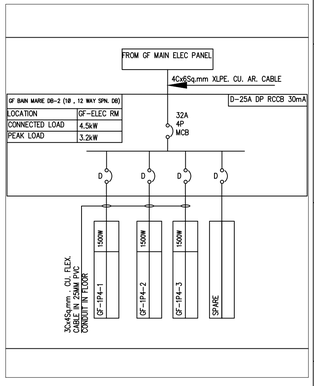


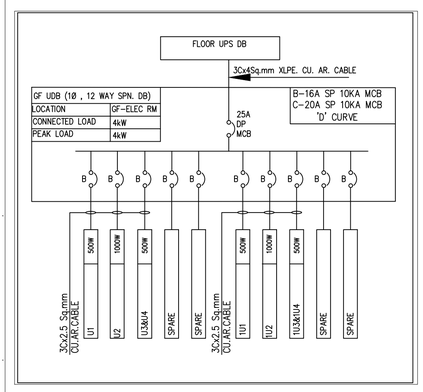
BITS CAFE - GROUND FLOOR PLAN - 13000 SQFT (266 PAX)







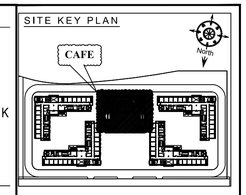




CEILING RACEWAY & CONDUITING :	
	32 MM3 GI CONDUIT IN CEILING FOR POWER
	25 MM3 GI CONDUIT IN CEILING FOR POWER
	25 MM3 PVC CONDUIT IN CEILING FOR POWER
	32 MM3 GI CONDUIT IN CEILING FOR DATA
	75OX50MM GI CEILING RACEWAY WITH COVER FOR POWER
	600X50MM GI CEILING RACEWAY WITH COVER FOR POWER
	450X75MM PERFORATED CABLE TRAY IN CEILING FOR POWER
	300X50MM RACEWAY WITH COVER IN CEILING FOR POWER
	150X50MM RACEWAY WITH COVER IN CEILING FOR POWER
	32MM# CONDUIT DROP & RAISER

NOTES:
1.ALL CABLES UPTO 4SQ.MM TO BE PROVIDED IN 25MM CONDUIT.
2.ALL CABLES UPTO 16SQ.MM TO BE PROVIDED IN 32MM CONDUIT.
3.ALL CONDUITING IN THE KITCHEN AREA TO BE CONSIDERED WITH GI CONDUIT.
4.ALL CONDUITING IN THE NON-KITCHEN AREA TO BE CONSIDERED WITH PVC CONDUIT.
5.2RX2.5

POWER LEGENDS:-	
SYMBOL	DESCRIPTION
	1 NO OF 6A SOCKET CONTROLLED BY 1 NO OF 6A SP SWITCH ON UPS POWER WITH 1 NO OF DATA POINT 1 NO OF 16A SOCKET CONTROLLED BY 1 NO OF 16A SP SWITCH ON RAW POWER
	1NO. OF TV INFORMATION OUT LET WITH OUT BOX AND DUAL PHASE PLATE WITH OUT BOX (TV) NOS OF 6A SOCKET CONTROLLED BY 2 NOS OF 6A SP SWITCH ON UPS 1NO. DATA POINT
	1 NO OF 6A SOCKET CONTROLLED BY 1 NO OF 6A SP SWITCH ON RAW POWER.
	1 NO OF 6/16A SOCKET CONTROLLED BY 16A SP SWITCH ON RAW POWER
	DATA POINT
	16A 1Ø Industrial Plug top Socket with 25A 2P RCCB 30mA
	20A 1Ø Industrial Plug top Socket with 25A 2P RCCB 30mA
	32A 3Ø Industrial Plug top Socket with 25A 4P RCCB 100mA
	63A 3Ø Industrial Plug top Socket with 40A 4P RCCB
	63A 3Ø Industrial Plug top Socket with 63A 4P RCCB 100mA
DOL	DOL STARTER
	ELECTRICAL DISTRIBUTION BOARD
	1 NO OF 6/16A SOCKET CONTROLLED BY 16A SP SWITCH ON RAW POWER IN IP RATED PLUXO-BOX



ELECTRICAL REVISIONS:

REV NO	DATE	DESCRIPTION	APPROVED BY
R0	10.03.26	TENDER DWG	AR

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

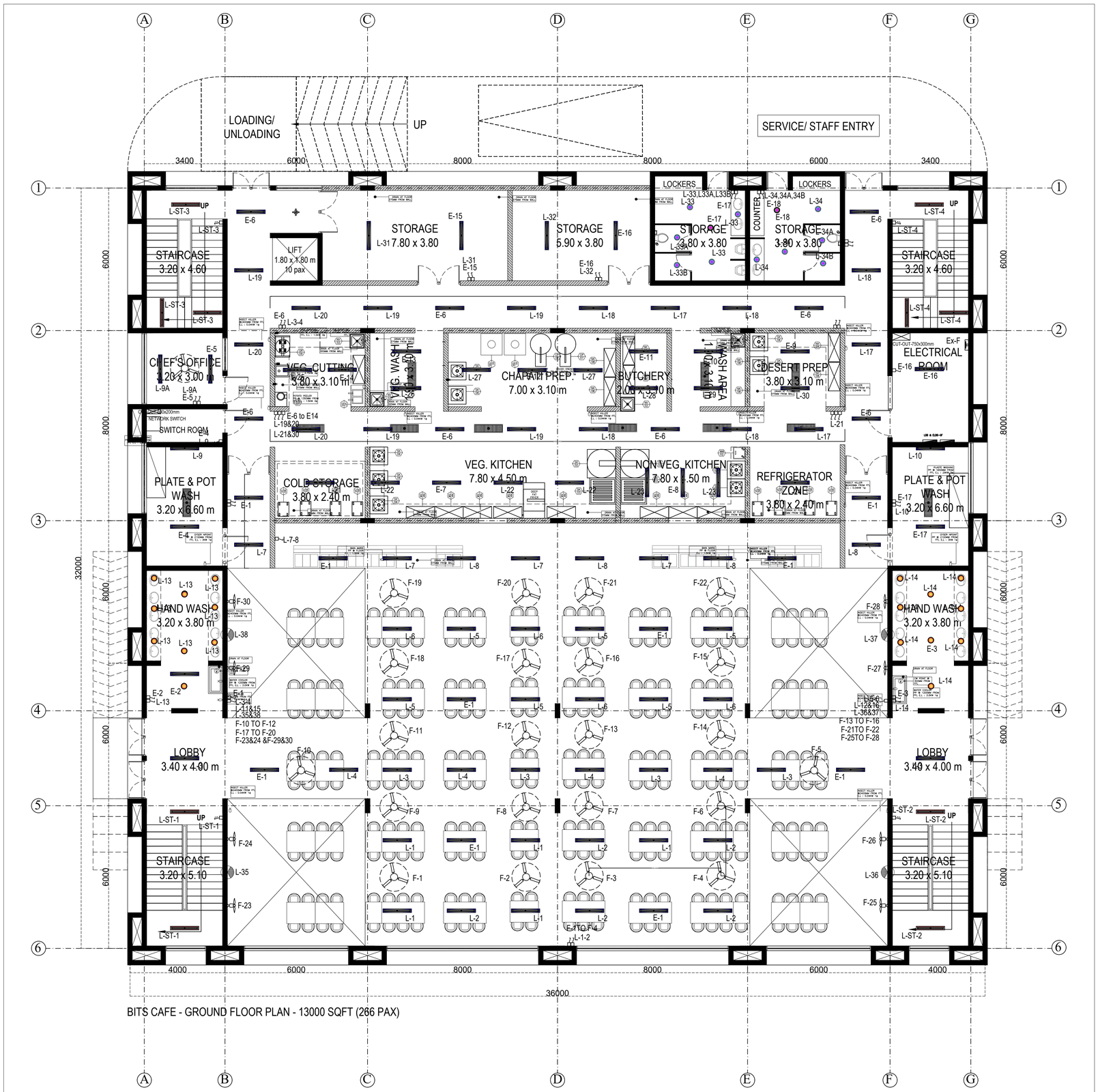
SEAL:

APPROVED BY:

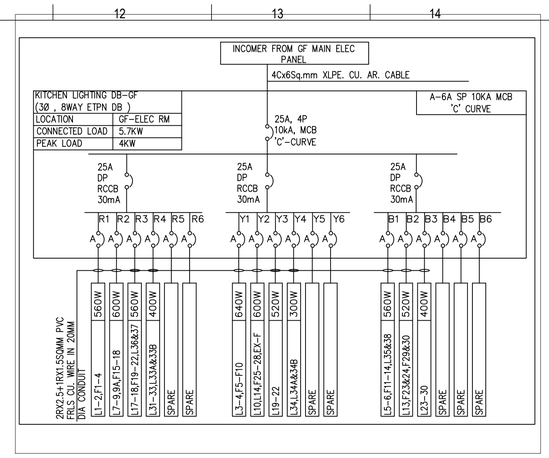
TENDER DRAWING

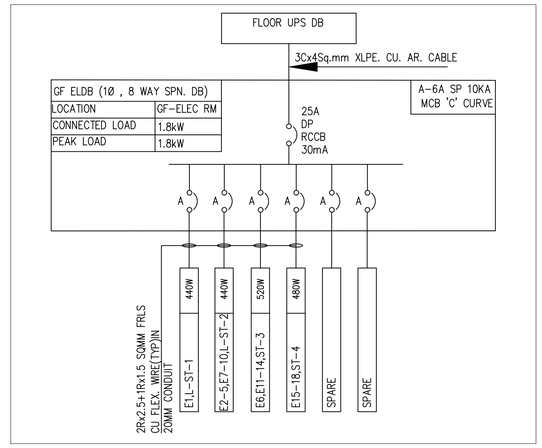
DRAWING TITLE:
BITS CAFE
TYPICAL FLOOR
ELECTRICAL -POWER
LAYOUT

SCALE : NTS(A1)	REVISION NO:	ORIENTATION:
DATE	R0	NORTH
DESIGNED BY		
DEALT BY		
CHECKED BY	DRAWING NO: BT-BH-EE-001-2	



BITS CAFE - GROUND FLOOR PLAN - 13000 SQFT (266 PAX)





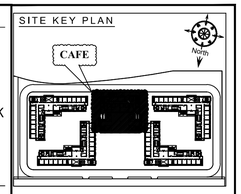
LEGEND

SYMBOL	DESCRIPTION
	40W LED SUSPENDED/SURFACE LINEAR IP65 WEATHER PROOF LIGHT FIXTURE
	20W LED SUSPENDED LINEAR IP65 WEATHER PROOF LIGHT FIXTURE WITH SENSOR
	CEILING LIGHT POINT 18/20W
	CEILING LIGHT POINT 15W
	25 MM# GA CONDUIT IN CEILING FOR LIGHTING CIRCUIT MAIN
	20 MM# GA CONDUIT IN CEILING FOR LIGHT POINTS LOOPING
	25 MM# GA CONDUIT IN CEILING FOR EMERGENCY LIGHTING CIRCUIT MAIN
	20 MM# GA CONDUIT IN CEILING FOR EMERGENCY LIGHT POINTS LOOPING
	CONDUIT DROP AND RAISER
	1200MM 40W SWEEP 3 BLADE CEILING FAN POINT
	10W UP LIGHT FIXTURE
	80W HIGH BAY LED LIGHT FIXTURE
	WALL FAN POINT
	EXHAUST FAN FOR TOILET

LEGEND FOR LIGHTING LAYOUT

SYMBOL	DESCRIPTION	HEIGHT FROM FFL
S	SENSOR PROVISION FOR CORRIDORS	SURFACE MOUNTED
MS	MOVEMENT SENSOR	RECESSED MOUNTED
OS	OCCUPANCY SENSOR	SURFACE MOUNTED
	6A 2WAY SWITCH	+1200MM
	6A SP SWITCH	+1200MM
	DISTRIBUTION BOARD	
	CONDUIT DROP AND RAISER	

SITE KEY PLAN



ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	08.03.26	APPROVAL DWG	AR

CLIENT:

Birla Institute of Technology Mesra,Ranchi(India)-835215

PROJECT

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

ELECTRICAL DRAWING

DRAWING TITLE:

BITS CAFE GROUND FLOOR ELECTRICAL -LIGHTING LAYOUT

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION:
DATE	: 08.03.2026	R0	NORTH
DESIGNED BY	: AR		
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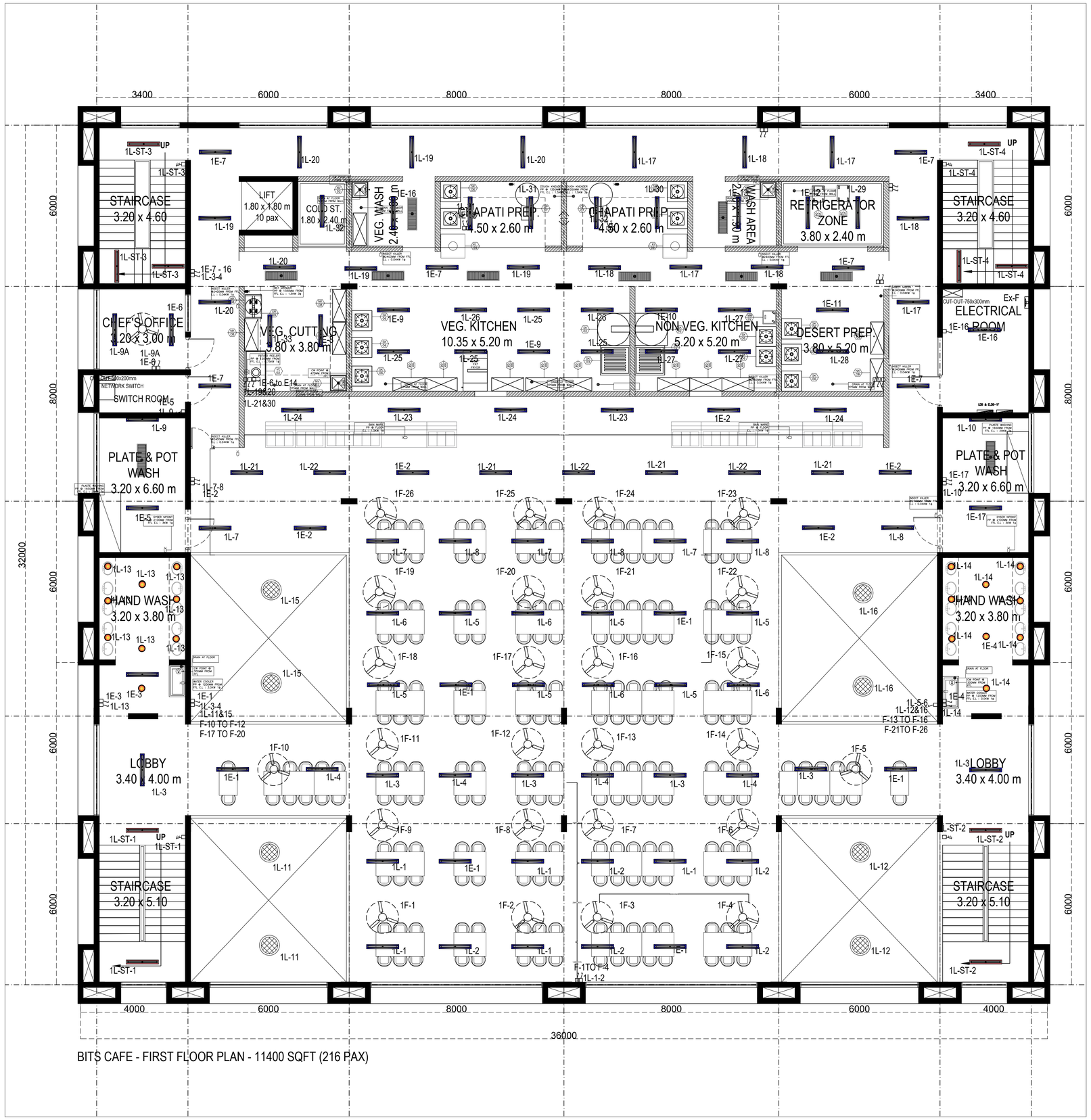
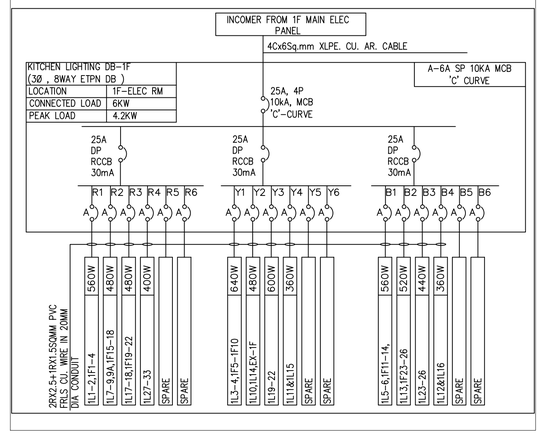
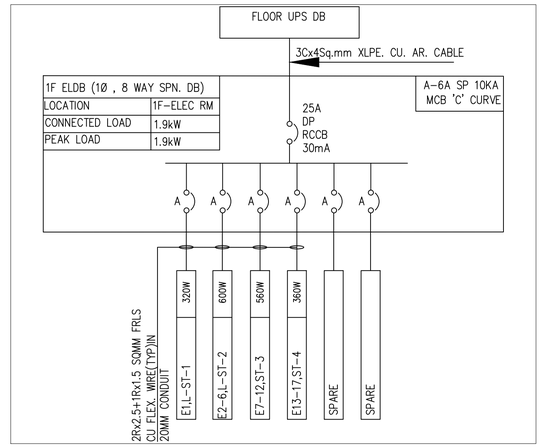
CHECKED BY	: AR	DRAWING NO: BT-BH-EE-001-1	



BITS CAFE - FIRST FLOOR PLAN - 11400 SQFT (216 PAX)





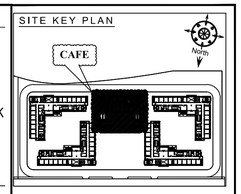
LEGEND

SYMBOL	DESCRIPTION
	40W LED SUSPENDED/SURFACE LINEAR IP65 WEATHER PROOF LIGHT FIXTURE
	20W LED SUSPENDED LINEAR IP65 WEATHER PROOF LIGHT FIXTURE WITH SENSOR
	CEILING LIGHT POINT 18/20W
	CEILING LIGHT POINT 15W
	25 MM# GA CONDUIT IN CEILING FOR LIGHTING CIRCUIT MAIN
	20 MM# GA CONDUIT IN CEILING FOR LIGHT POINTS LOOPING
	25 MM# GA CONDUIT IN CEILING FOR EMERGENCY LIGHTING CIRCUIT MAIN
	20 MM# GA CONDUIT IN CEILING FOR EMERGENCY LIGHT POINTS LOOPING
	CONDUIT DROP AND RAISER
	1200MM 40W SWEEP 3 BLADE CEILING FAN POINT
	10W UP LIGHT FIXTURE
	80W HIGH BAY LED LIGHT FIXTURE
	WALL FAN POINT
	EXHAUST FAN FOR TOILET

LEGEND FOR LIGHTING LAYOUT

SYMBOL	DESCRIPTION	HEIGHT FROM FFL
	SENSOR PROVISION FOR CORRIDORS	SURFACE MOUNTED
	MOVEMENT SENSOR	RECESSED MOUNTED
	OCCUPANCY SENSOR	SURFACE MOUNTED
	6A 2WAY SWITCH	+1200MM
	6A SP SWITCH	+1200MM
	DISTRIBUTION BOARD	
	CONDUIT DROP AND RAISER	

SITE KEY PLAN



ELECTRICAL REVISIONS:

REV NO	DATE	DESCRIPTION	APPROVED BY
R0	08.03.26	APPROVAL DWG	AK

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

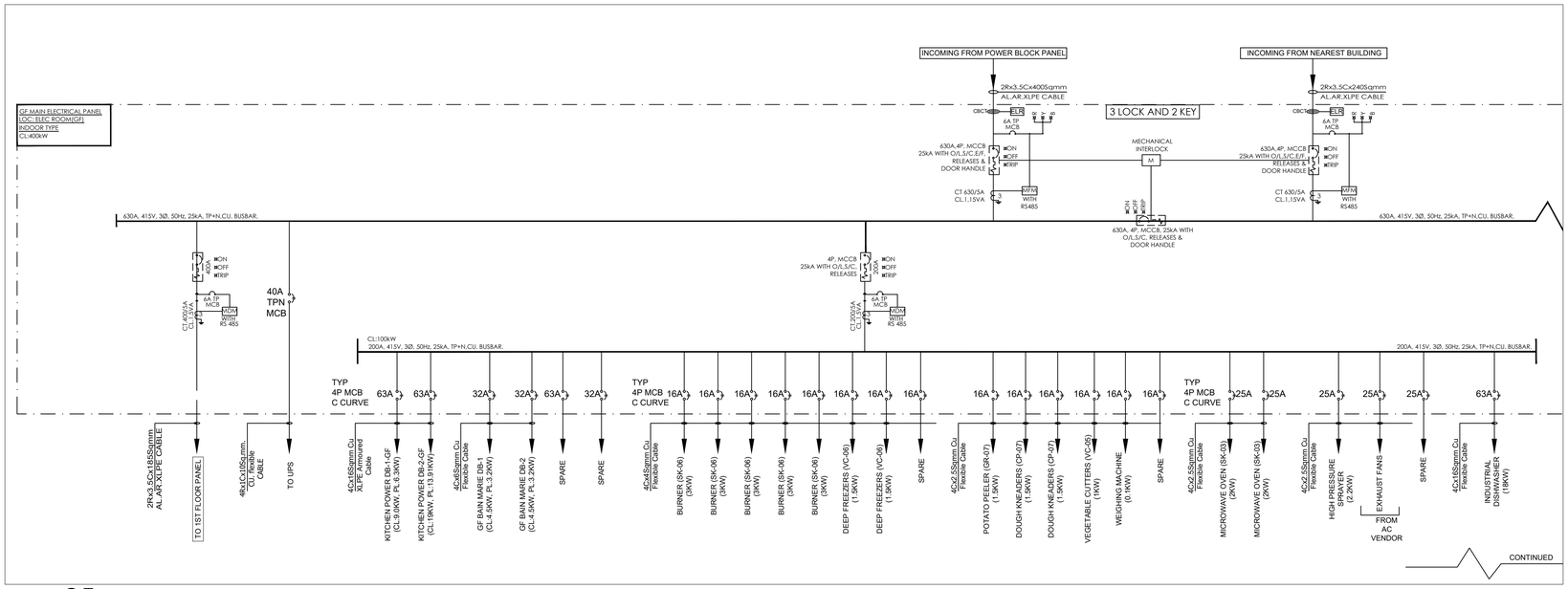
APPROVED BY:

ELECTRICAL DRAWING

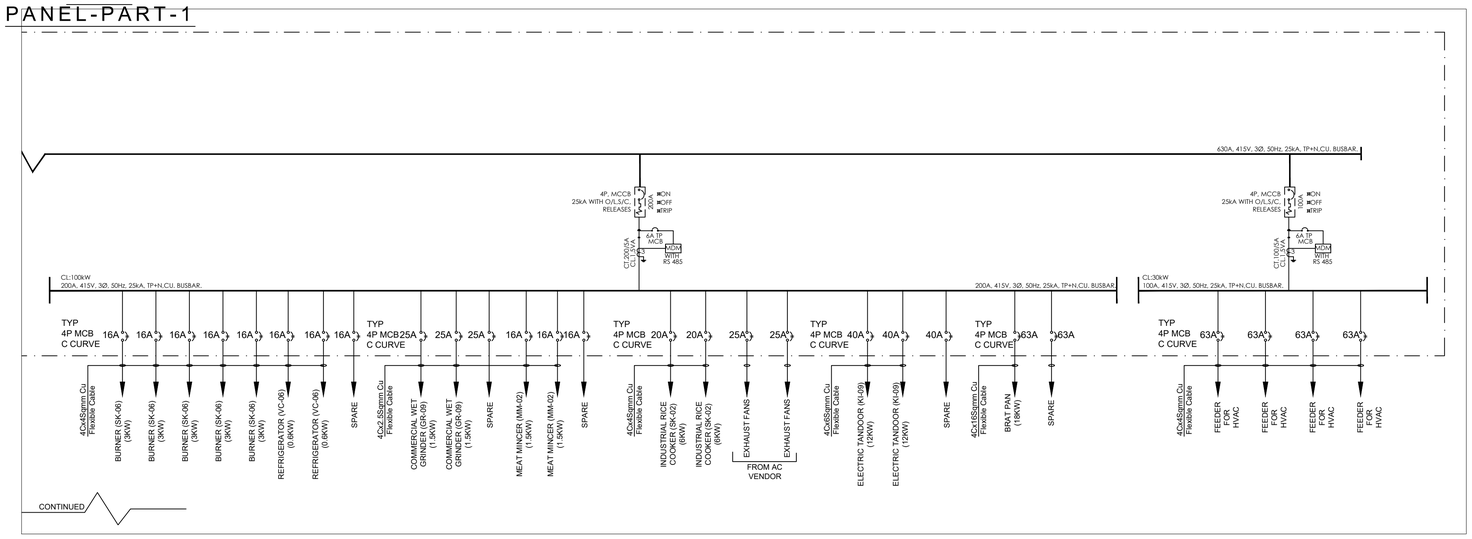
DRAWING TITLE:

BITS CAFE
FIRST FLOOR
ELECTRICAL -LIGHTING LAYOUT

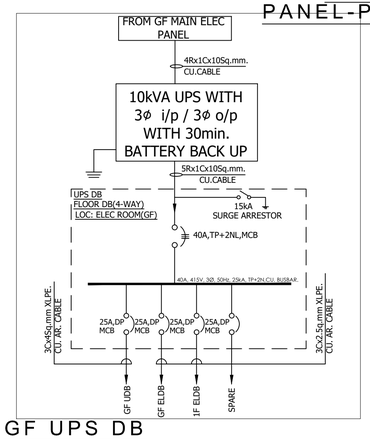
SCALE	: NTS(A1)	REVISION NO:	ORIENTATION:
DATE		R0	NORTH
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO:	
		BT-BH-EE-002-1	



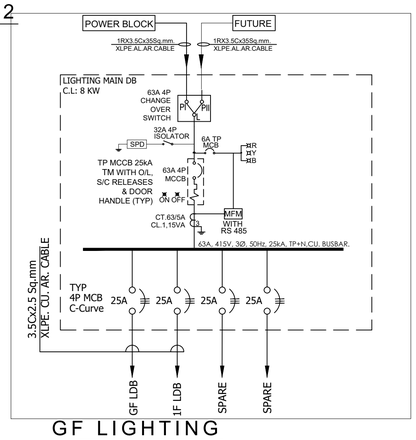
GF ELECTRICAL MAIN PANEL-PART-1



GF ELECTRICAL MAIN PANEL-PART-2



GF UPS DB

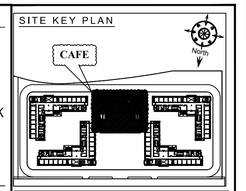


GF LIGHTING MAIN DB

NOTE :

1. UPTO 200A THERMAL MAGNETIC BASED MCCB NEED TO CONSIDER.
2. ABOVE 200A MICRO PROCESS NEED TO BE CONSIDER
3. ANY CLARIFICATION / UPDATION IN SITE TO BE INFORMED AND TAKEN APPROVAL AND THEN PROCEED.
4. MFM AND MDM METER TO USE SIEMENS MAKE :Model: PAC 3200 WITH PORT FOR SCADA BMS INTEGRATION FOR HT AND LT PANEL.

SITE KEY PLAN



-: LEGEND :-	
GCU	GENERATOR CONTROL UNIT
ELR	EARTH LEAKAGE RELAY
RFT	RESTRICTED EARTH FAULT RELAY
DCA	DC AMMETER
DCV	DC VOLT METER
MR	MASTER TRIPPING RELAY
TSR	TRIP CIRCUIT SUPER VISION RELAY
VSP-33	SELF POWERED O/C, E/F RELAY

-: LEGEND :-	
	AUTO TRANSFER SWITCH
	LINE CABLE INDICATOR
	ISOLATOR
IL	INTER LOCK
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
MCCB	MCCB-MANUAL OPERATED
ACB	AIR CIRCUIT BREAKER DRAW OUT TYPE
	AUTO/MANUAL SELECTOR SWITCH
MPCB	MOTOR PROTECTION CIRCUIT BREAKER
R Y B N	LED TYPE PHASE INDICATING LAMPS
	FUSE
	EMERGENCY TRIPPING HANDLE
MIL	MECHANICAL INTER LOCK
ELM	EARTH LEAKAGE RELAY WITH CORE BALANCE CURRENT TRANSFORMER
	7% DETUNED SERIES REACTOR
	CAPACITOR
	MINIATURE CIRCUIT BREAKER
	CURRENT TRANSFORMER (NOS. INDICATE QTY)
OFF ON TRIP	LED TYPE INDICATING LAMPS WITH ILLUMINATED PUSH BUTTONS. R - RED - ON INDICATION G - GREEN - OFF INDICATION A - AMBER - TRIP INDICATION
LM DLM	LOAD MANAGER/DIGITAL LOAD MANAGER WITH RS485 PORT
EM	DIGITAL ENERGY METERS
ELR	EARTH LEAKAGE RELAY
RPR	REVERSE POWER REALY
A.V.F	AMMETER, VOLTMETER, FREQUENCY METER
KW.KWH	KILO WATT/KILL WATT HOUR METER
V	VOLTMETER WITH BUILT IN SELECTOR SWITCH
A	AMMETER WITH BUILT IN SELECTOR SWITCH

Note:-
1. 250A & above MCCB's will be with μP Based releases
2. Earth Fault (E/F) shall be part of ACB/MCCB releases. External separate E/F module not acceptable.
3. 200A & Below MCCB's shall be with Thermal magnetic releases.Unless other wise specified.
4. All rising main MCCB top of box / units should be provided with over load and short circuit releases

ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	11.03.26	TENDER DWG	AR

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

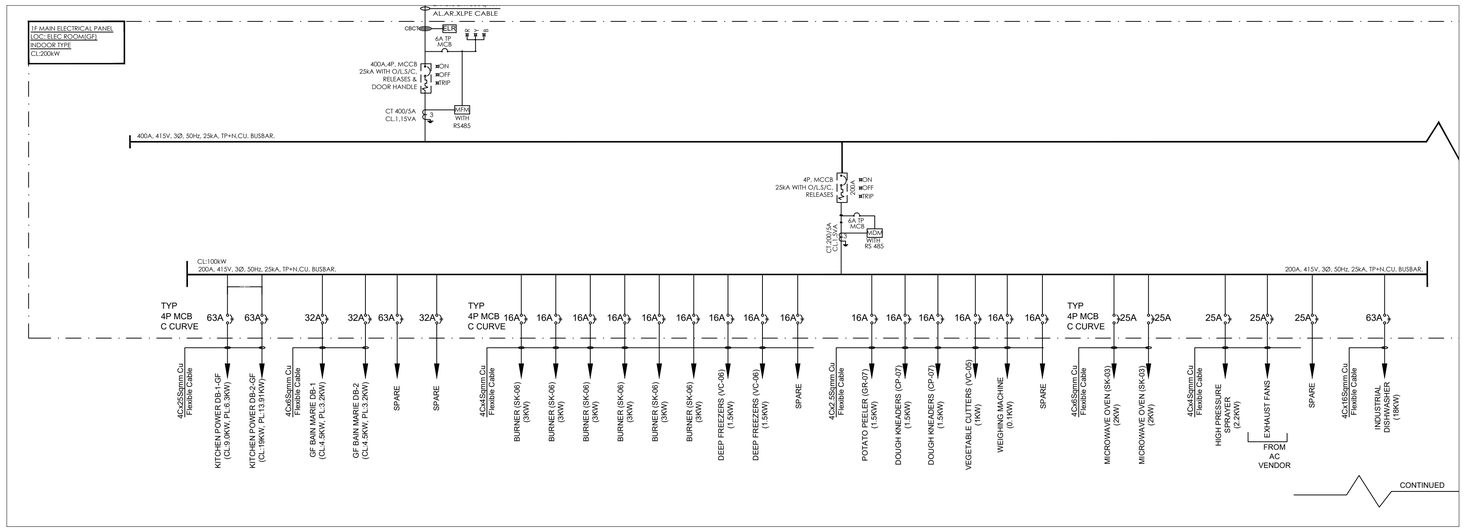
APPROVED BY:

TENDER DRAWING

DRAWING TITLE:

BITS CAFE ELECTRICAL MSLD-SHEET-1(GF PANELS)

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION: NORTH
DATE	: 11.03.2026	R0	
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO:	BT-BH-EE-008-1



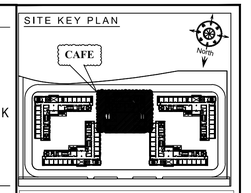
1F
ELECTRICAL
MAIN
PANEL-PART-1

1F
ELECTRICAL
MAIN
PANEL-PART-2

NOTE :

1.UPTO 200A THERMAL MAGNETIC BASED MCCB NEED TO CONSIDER.
2. ABOVE 200A MICRO PROCESS NEED TO BE CONSIDER
3.ANY CLARIFICATION / UPDATION IN SITE TO BE INFORMED AND TAKEN APPROVAL AND THEN PROCEED.
4.MFM AND MDM METER TO USE SIEMENS MAKE :Model: PAC 3200 WITH PORT FOR SCADA BMS INTEGRATION FOR HT AND LT PANEL.

SITE KEY PLAN



-: LEGEND :-	
GCU	GENERATOR CONTROL UNIT
ELR	EARTH LEAKAGE RELAY
RFT	RESTRICTED EARTH FAULT RELAY
DCA	DC AMMETER
DCV	DC VOLT METER
MT	MASTER TRIPPING RELAY
TSP	TRIP CIRCUIT SUPER VISION RELAY
VSP-33	SELF POWERED O/C, E/F RELAY

-: LEGEND :-	
	AUTO TRANSFER SWITCH
	LINE CABLE INDICATOR
	ISOLATOR
	INTER LOCK
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	MCCB-MANUAL OPERATED
	AIR CIRCUIT BREAKER DRAW OUT TYPE
	AUTO/MANUAL SELECTOR SWITCH
	MOTOR PROTECTION CIRCUIT BREAKER
R Y B G	LED TYPE PHASE INDICATING LAMPS
	FUSE
	EMERGENCY TRIPPING HANDLE
MI	MECHANICAL INTER LOCK
ELM	EARTH LEAKAGE RELAY WITH CORE BALANCE CURRENT TRANSFORMER
	7% DETUNED SERIES REACTOR
	CAPACITOR
	MINIATURE CIRCUIT BREAKER
	CURRENT TRANSFORMER (NOS. INDICATE QTY)
OFF ON TRIP	LED TYPE INDICATING LAMPS WITH ILLUMINATED PUSH BUTTONS. R - RED - ON INDICATION G -GREEN - OFF INDICATION A -AMBER - TRIP INDICATION
LM MDM	LOAD MANAGER/DIGITAL LOAD MANAGER WITH RS485 PORT
EM	DIGITAL ENERGY METERS
ELR	EARTH LEAKAGE RELAY
RPR	REVERSE POWER REALY
A,V,F	AMMETER, VOLTMETER, FREQUENCY METER
KW,KWH	KILO WATT/KILL WATT HOUR METER
V	VOLTMETER WITH BUILT IN SELECTOR SWITCH
A	AMMETER WITH BUILT IN SELECTOR SWITCH

Note:-
1. 250A & above MCCB's will be with µP Based releases
2. Earth Fault (E/F) shall be part of ACB/MCCB releases. External separate E/F module not acceptable.
3. 200A & Below MCCB's shall be with Thermal magnetic releases.Unless other wise specified.
4. All rising main MCCB top of box / units should be provided with over load and short circuit releases

ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	11.03.26	TENDER DWG	AR

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

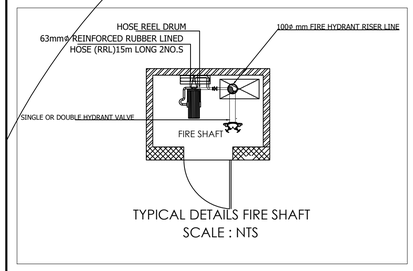
APPROVED BY:

TENDER DRAWING

DRAWING TITLE:
BITS CAFE
ELECTRICAL
MSLD-SHEET-2(1F PANEL)

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION: NORTH
DATE		R0	
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO.	BT-BH-EE-008-2

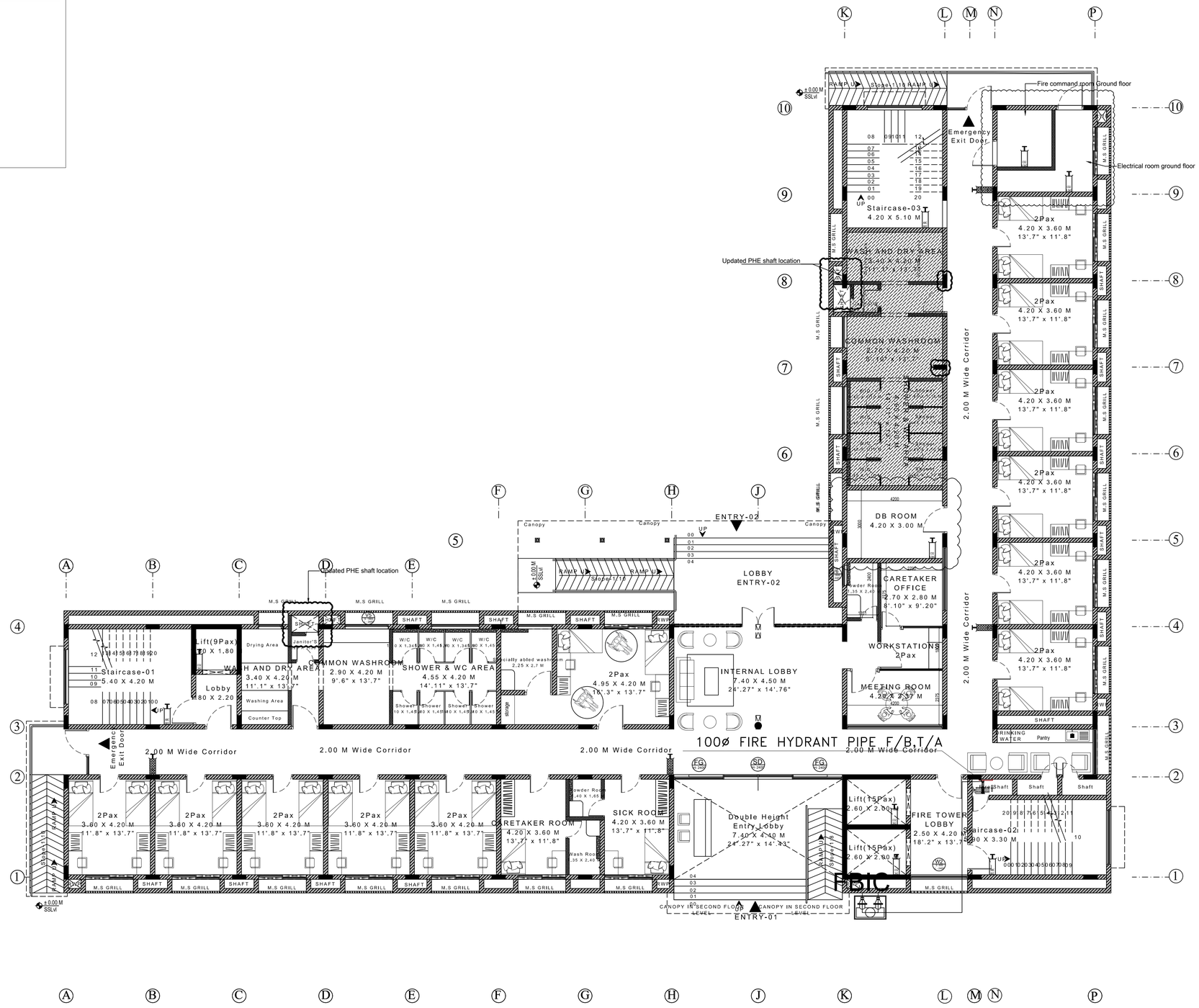
Fire Fighting drawing Set



TYPICAL DETAILS FIRE SHAFT
SCALE : NTS

LEGEND	
SYMBOL	DESCRIPTION
	1No. ABC EXTINGUISHER 2Kg CAPACITY
	1No. CO2 EXTINGUISHER 4.5Kg CAPACITY
	1No. ABC EXTINGUISHER 6Kg CAPACITY
	1No. CO2 EXTINGUISHER 2Kg CAPACITY

SYMBOL	DESCRIPTION
	STANDARD COVERAGE PENDENT SPRINKLER 5.6KFACTOR 68DEGREE
	EXTENDED COVERAGE SIDEWALL SPRINKLER 5.6KFACTOR 68DEGREE
	RRL HOSE 15MTRS LENGTH 2NOS GUN METAL BRANCH PIPE 1NO
	HOSE REEL DRUM 40MTRS LENGTH 1NOS
	SINGLE HEAD HYDRANT VALVE
ZCV	ZCV–ZONE CONTROL VALVE
ZCV	ZCV–ZONE CONTROL VALVE ASSEMBLY CONSISTS OF 1 NO OF BUTTERFLY VALVE 1 NO OF FLOW SWITCH



GF BOYS HOSTELS — Ground Floor_BOYS HOSTELS -BLOCK WORK LAYOUT PLAN

SCALE 1:100

GENERAL NOTES

- ALL DIMENSIONS IN MM.
- FOLLOW WRITTEN DIMENSIONS ONLY.
- ANY DISCREPANCY NOTED IN THE DRG.SHOULD BE BROUGHT TO THE NOTICE OF THE M&E DEPT WITH IN SEVEN DAYS.
- THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.

PROJECT TITLE :
PROPOSED BITS HOSTEL BLOCK

CLIENT:
CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

STRUCTURAL CONSULTANT:

ARCHITECTS:

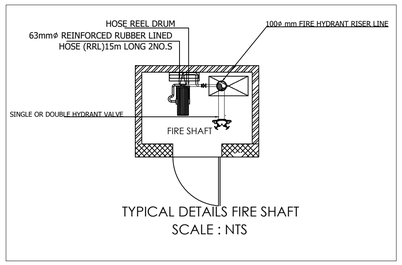
ELECTRICAL, FIRE & PHE CONSULTANT:

APPROVED BY:

PURPOSE:
FIRE TENDER
FIRE DRAWING

DRAWING TITLE:
FIRE FIGHTING LAYOUT FOR TYPICAL FLOOR

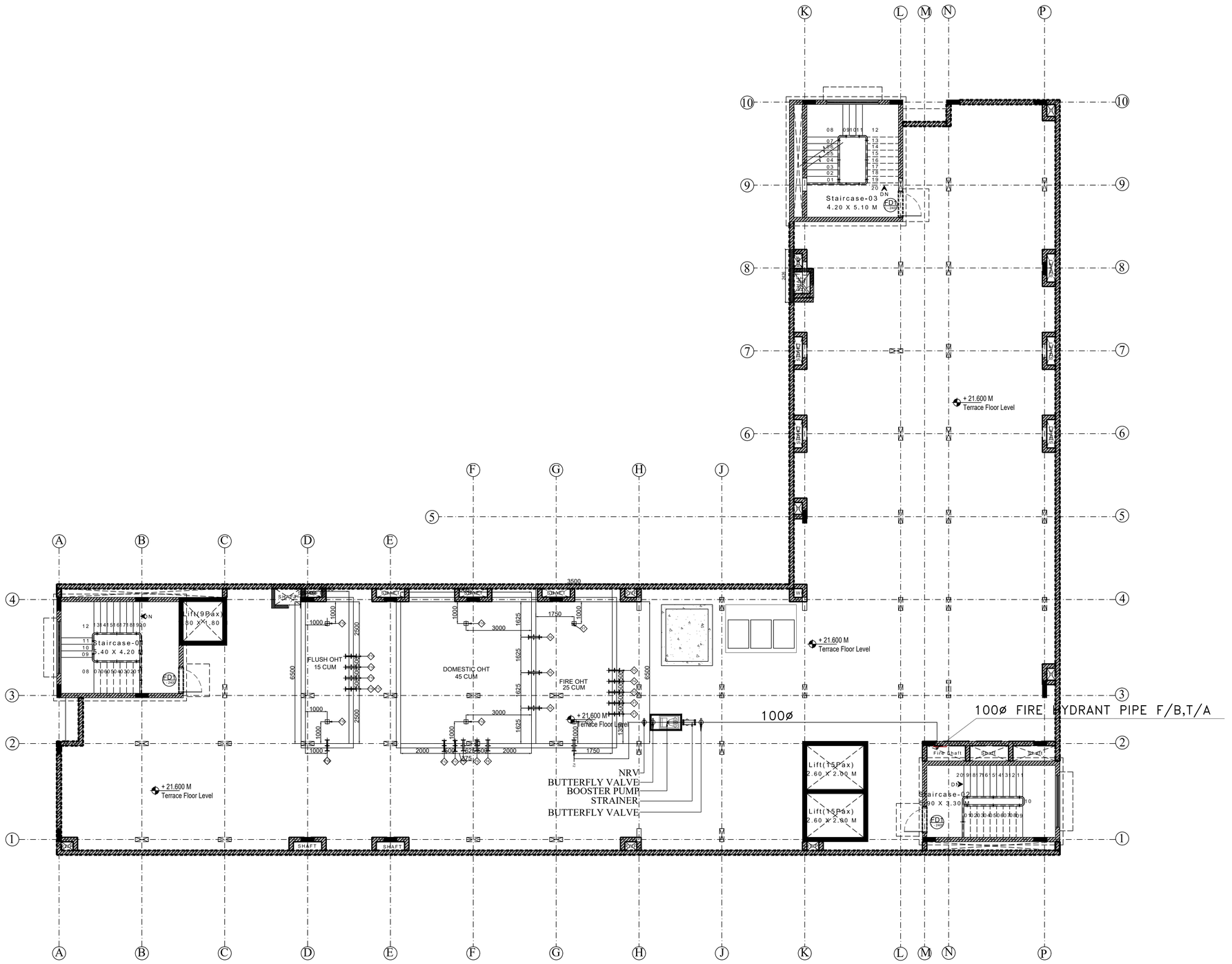
SCALE : 1:100/A1	REV.NO:	ORIENTATION
DATE	R0	
DESIGNED BY		
DEALT BY	DRAWING NO:	
CHECKED BY	TD-FF-001	

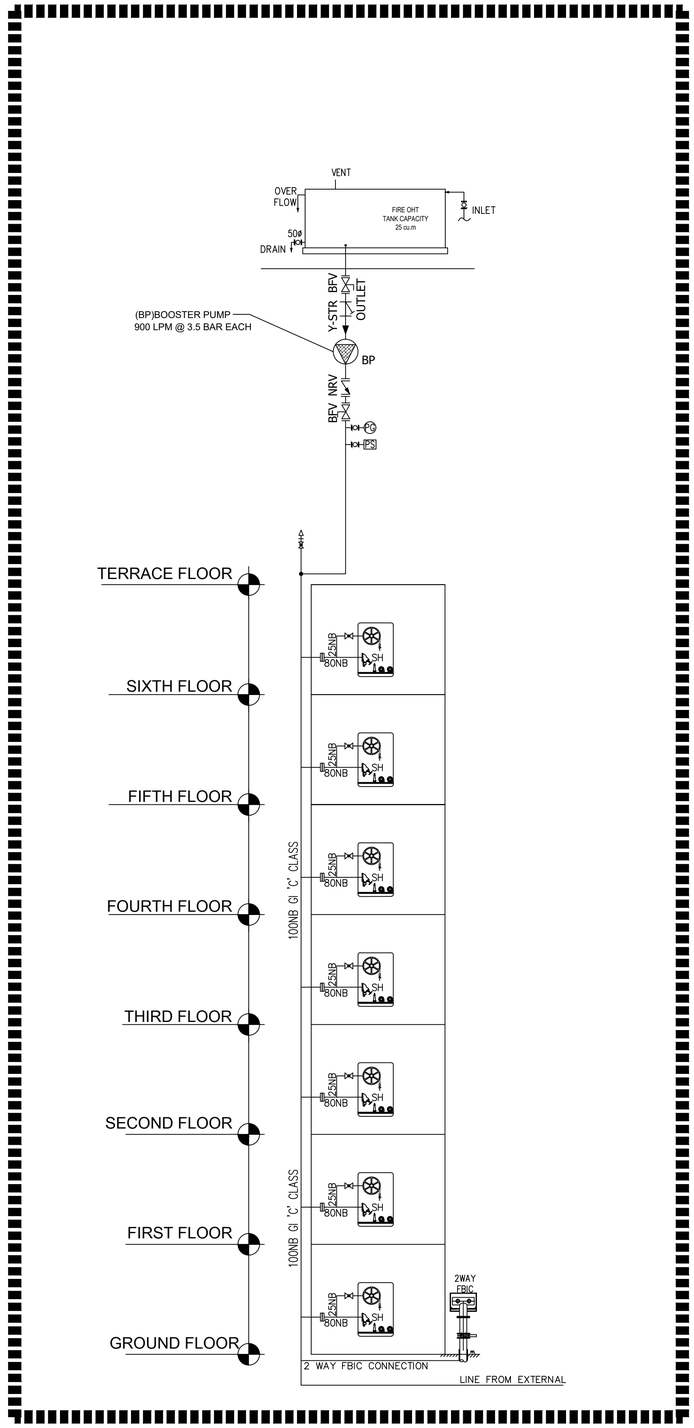


TYPICAL DETAILS FIRE SHAFT
SCALE : NTS

LEGEND	
SYMBOL	DESCRIPTION
	1No. ABC EXTINGUISHER 2Kg CAPACITY
	1No. CO2 EXTINGUISHER 4.5Kg CAPACITY
	1No. ABC EXTINGUISHER 6Kg CAPACITY
	1No. CO2 EXTINGUISHER 2Kg CAPACITY

SYMBOL	DESCRIPTION
	STANDARD COVERAGE PENDENT SPRINKLER 5.6KFACTOR 68DEGREE
	EXTENDED COVERAGE SIDEWALL SPRINKLER 5.6KFACTOR 68DEGREE
	RRL HOSE 15MTRS LENGTH 2NOS GUN METAL BRANCH PIPE 1NO
	HOSE REEL DRUM 40MTRS LENGTH 1NOS
	SINGLE HEAD HYDRANT VALVE
ZCV	ZCV–ZONE CONTROL VALVE
ZCV	ZCV–ZONE CONTROL VALVE ASSEMBLY CONSISTS OF 1 NO OF BUTTERFLY VALVE 1 NO OF FLOW SWITCH


Staircase-03
4.20 X 5.10 M
+ 21.600 M
Terrace Floor Level
Staircase-01
5.40 X 4.20
Lift(9Pax)
2.80 X 1.80
FLUSH OHT
15 CUM
DOMESTIC OHT
45 CUM
FIRE OHT
25 CUM
+ 21.600 M
Terrace Floor Level
NRV
BUTTERFLY VALVE
BOOSTER PUMP
STRAINER
BUTTERFLY VALVE
100ø
100ø FIRE HYDRANT PIPE F/B,T/A
Lift(15Pax)
2.60 X 2.80 M
Lift(15Pax)
2.60 X 2.80 M
Staircase-02
3.30 X 3.30 M
FIRE SHAFT
SHAFT
SHAFT



LEGEND :		
S.NO	SYMBOL	DESCRIPTION
1	———	HYDRANT PIPE
2		BUTTERFLY VALVE
3		NON RETURN VALVE
4		AIR RELEASE VALVE
5	SH	FIRE HOSE CABINET- (SINGLE HEADED HYDRANT) 2Nos x15m LONG RRL HOSE WITH CABINET, 19mmø x40m LONG HOSE REEL DRUM

GENERAL NOTES

- ALL DIMENSIONS IN MM.
- FOLLOW WRITTEN DIMENSIONS ONLY.
- ANY DISCREPANCY NOTED IN THE DRG.SHOULD BE BROUGHT TO THE NOTICE OF THE M&E DEPT WITH IN SEVEN DAYS.
- THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.

PROJECT TITLE :

PROPOSED BITS HOSTEL BLOCK

CLIENT:

CLIENT — Birla Institute of Technology, Mesra,Ranchi(India)-835215

STRUCTURAL CONSULTANT:

ARCHITECTS:

ELECTRICAL, FIRE & PHE CONSULTANT:

APPROVED BY:

PURPOSE:

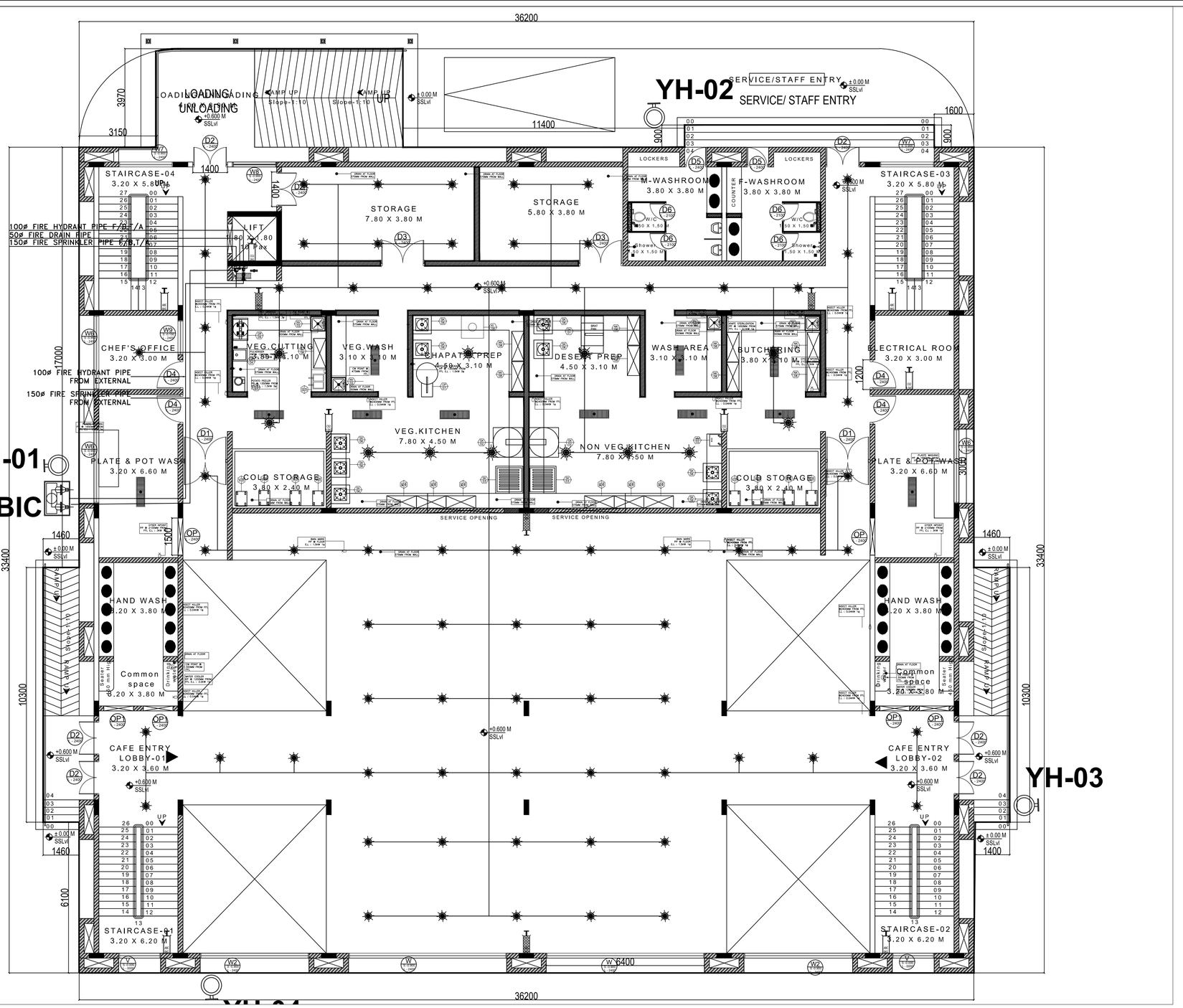
FIRE TENDER

FIRE DRAWING

DRAWING TITLE:

FIRE FIGHTING SCHEMATIC LAYOUT

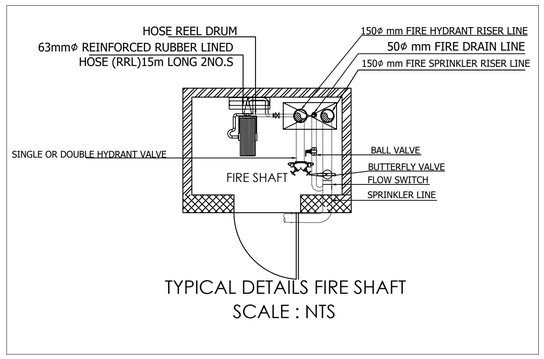
SCALE : 1:100/A1	REV.NO:	ORIENTATION
DATE	R0	
DESIGNED BY		
DEALT BY	DRAWING NO:	
CHECKED BY	TD-FF-009	



LEGEND

SYMBOL	DESCRIPTION
	1No. ABC EXTINGUISHER 2Kg CAPACITY
	1No. CO2 EXTINGUISHER 4.5Kg CAPACITY
	1NO. 9LITRES CAPACITY PORTABLE HAND HELD "WATER MIST & CAFS" FIRE EXTINGUISHER -JET &SPRAY TYPE
	1No. CO2 EXTINGUISHER 2Kg CAPACITY
	1NO. ABC POWDER EXTINGUISHER 6KG AND 9 LITRES CAPACITY PORTABLE HAND HELD "WATER MIST &CAFS" FIRE EXTINGUISHER -JET &SPRAY TYPE (COMBINATION) CAPACITY FOR EVERY 8 CARKS AT PARKING AREAS SHOULD BE PROVIDED.

SYMBOL	DESCRIPTION
	STANDARD COVERAGE PENDENT SPRINKLER 5.6KFACTOR 68DEGREE
	EXTENDED COVERAGE SIDEWALL SPRINKLER 5.6KFACTOR 68DEGREE
	RRL HOSE 15MTRS LENGTH 2NOS GUN METAL BRANCH PIPE 1NO
	HOSE REEL DRUM 40MTRS LENGTH 1NOS
	SINGLE HEAD HYDRANT VALVE
ZCV	ZCV-ZONE CONTROL VALVE
ZCV	ZCV-ZONE CONTROL VALVE ASSEMBLY CONSISTS OF 1 NO OF BUTTERFLY VALVE 1 NO OF FLOW SWITCH 1 NO OF TEST DRAIN VALVE



TYPICAL DETAILS FIRE SHAFT
SCALE : NTS

KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MM.
2. FOLLOW WRITTEN DIMENSIONS ONLY.
3. ANY DISCREPANCY NOTED IN THE DRG. SHOULD BE BROUGHT TO THE NOTICE OF M&E DEPT PRIOR TO EXECUTION.
4. THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.
5. MAINTAIN COLOUR CODING OF CONDUIT AS INDICATED TECHNICAL SPECIFICATION

ARCHITECTURAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

PROJECT TITLE :
PROPOSED CAFETERIA

CLIENT:
CLIENT
Birla Institute of Technology
Mesra,Ranchi(India)-835215

STRUCTURAL CONSULTANT:

ARCHITECTS:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE:
TENDER DRAWING

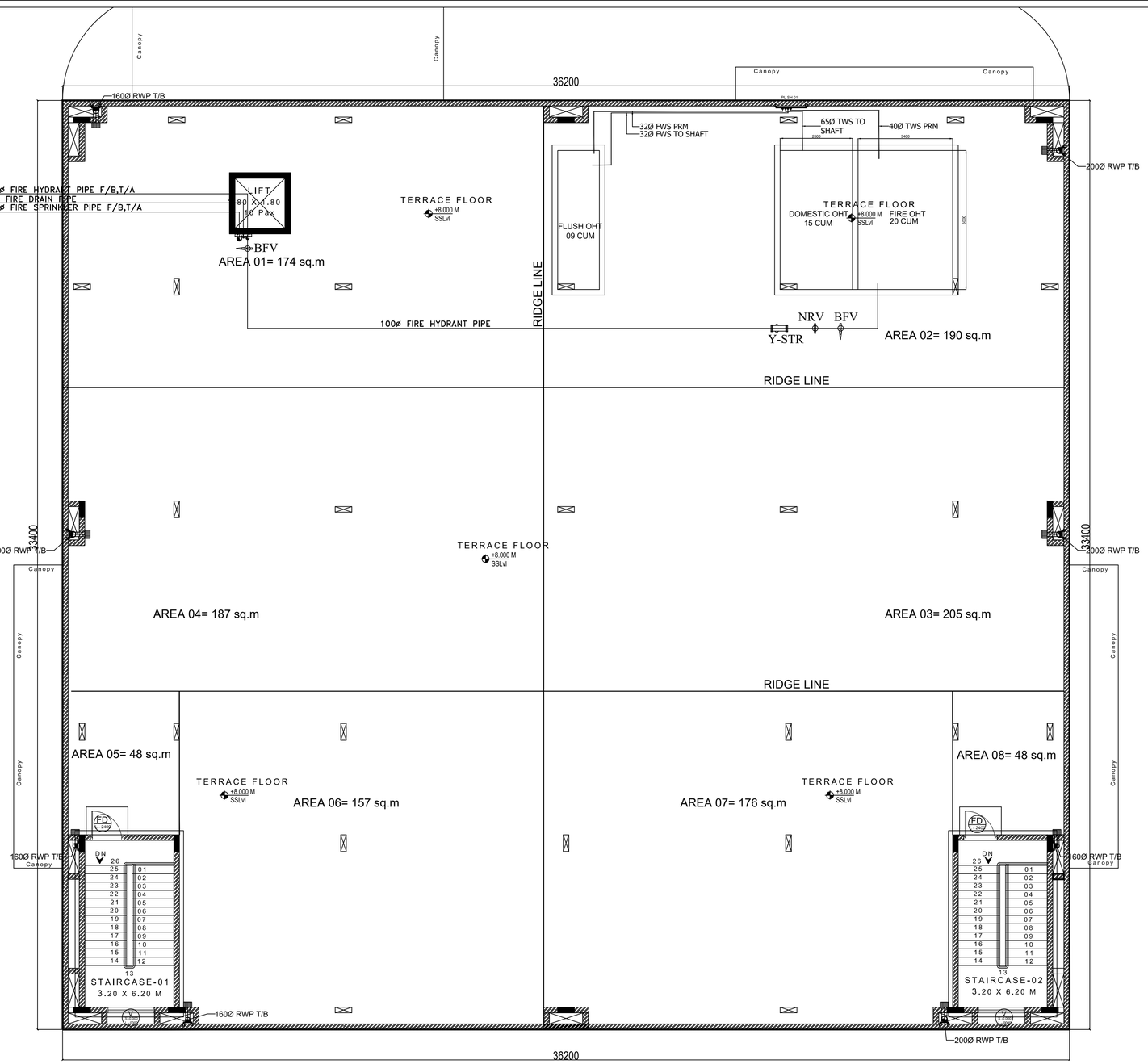
SEAL:

APPROVED BY:

FIRE DRAWING

DRAWING TITLE:
FIRE FIGHTING LAYOUT FOR GROUND & FIRST FLOOR

SCALE : 1: 50 (A2)	REVISION NO:
DATE	R0
DESIGNED BY	ORIENTATION:
DEALT BY	
CHECKED BY	DRAWING NO: TD-FF-101



TF
BITS CAFE

Terrace Floor_BITS CAFE -BLOCK WORK LAYOUT PLAN

SCALE 1:100

SL NO	SYMBOL	DESCRIPTION
01		Y STRAINER
02		BUTTERFLY VALVE
03		NON RETURN VALVE
04		100Ø FIRE PIPE

KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MM.
2. FOLLOW WRITTEN DIMENSIONS ONLY.
3. ANY DISCREPANCY NOTED IN THE DRG. SHOULD BE BROUGHT TO THE NOTICE OF M&E DEPT PRIOR TO EXECUTION.
4. THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.
5. MAINTAIN COLOUR CODING OF CONDUIT AS INDICATED TECHNICAL SPECIFICATION

ARCHITECTURAL REVISIONS:

DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

	DATE	DESCRIPTION	APPROVED BY

PROJECT TITLE :
PROPOSED CAFETERIA

CLIENT:
CLIENT
Birla Institute of Technology
Mesra,Ranchi(India)-835215

STRUCTURAL CONSULTANT:

ARCHITECTS:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE:
TENDER DRAWING

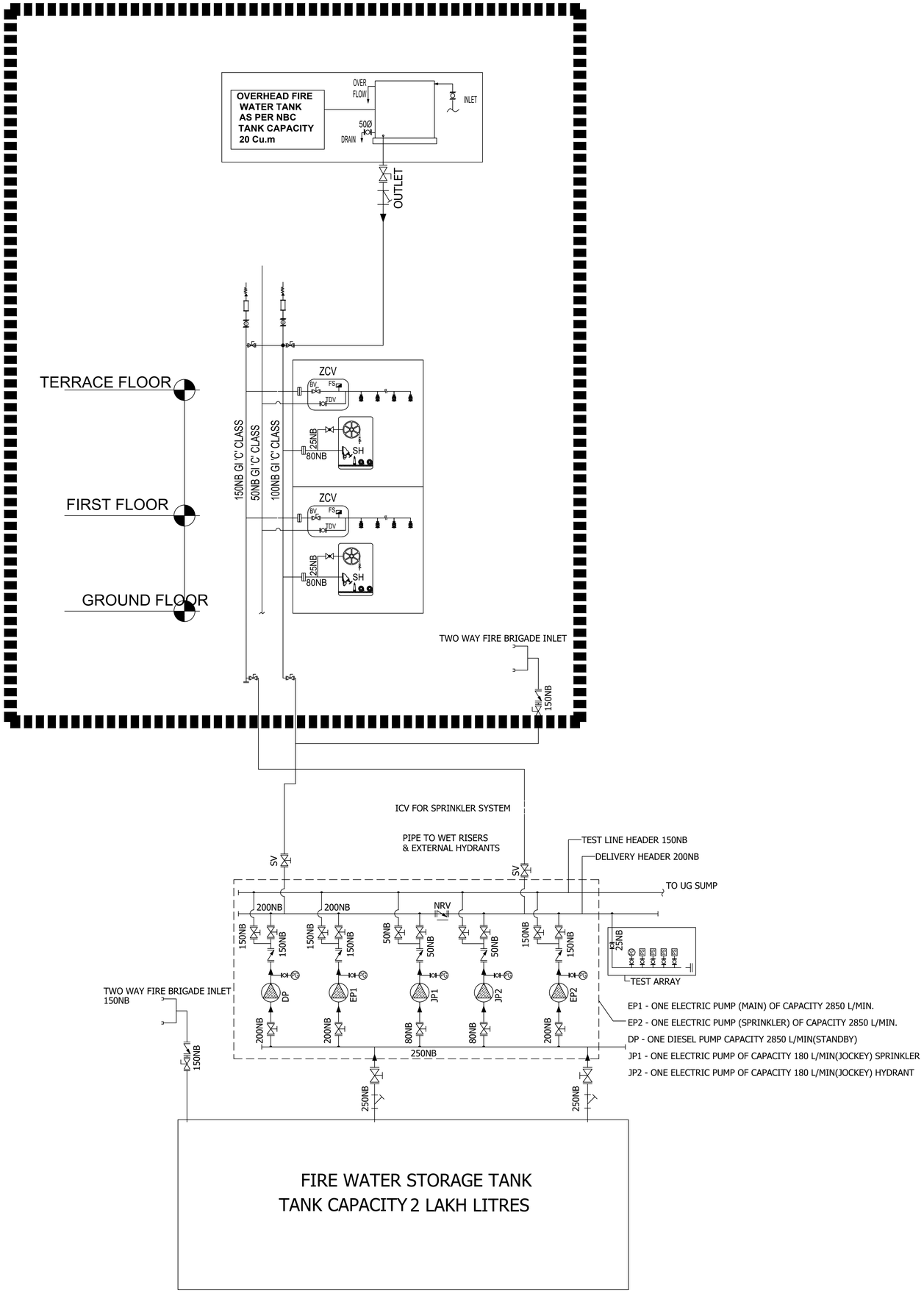
SEAL:

APPROVED BY:

FIRE DRAWING

DRAWING TITLE:
FIRE FIGHTING LAYOUT FOR TERRACE FLOOR

SCALE : 1: 50 (A2)	REVISION NO:
DATE	R0
DESIGNED BY	ORIENTATION:
DEALT BY	
CHECKED BY	DRAWING NO: **TD-FF-103**



KEY PLAN

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MM.
2. FOLLOW WRITTEN DIMENSIONS ONLY.
3. ANY DISCREPANCY NOTED IN THE DRG. SHOULD BE BROUGHT TO THE NOTICE OF M&E DEPT PRIOR TO EXECUTION.
4. THIS DRG. TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL / STRUCTURAL DRAWINGS.
5. MAINTAIN COLOUR CODING OF CONDUIT AS INDICATED TECHNICAL SPECIFICATION

ARCHITECTURAL REVISIONS:

DATE	DESCRIPTION	APPROVED BY

PLUMBING REVISIONS:

	DATE	DESCRIPTION	APPROVED BY

PROJECT TITLE :
PROPOSED CAFETERIA

CLIENT:
CLIENT
Birla Institute of Technology
Mesra,Ranchi(India)-835215

STRUCTURAL CONSULTANT:

ARCHITECTS:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE:
TENDER DRAWING

SEAL:

APPROVED BY:

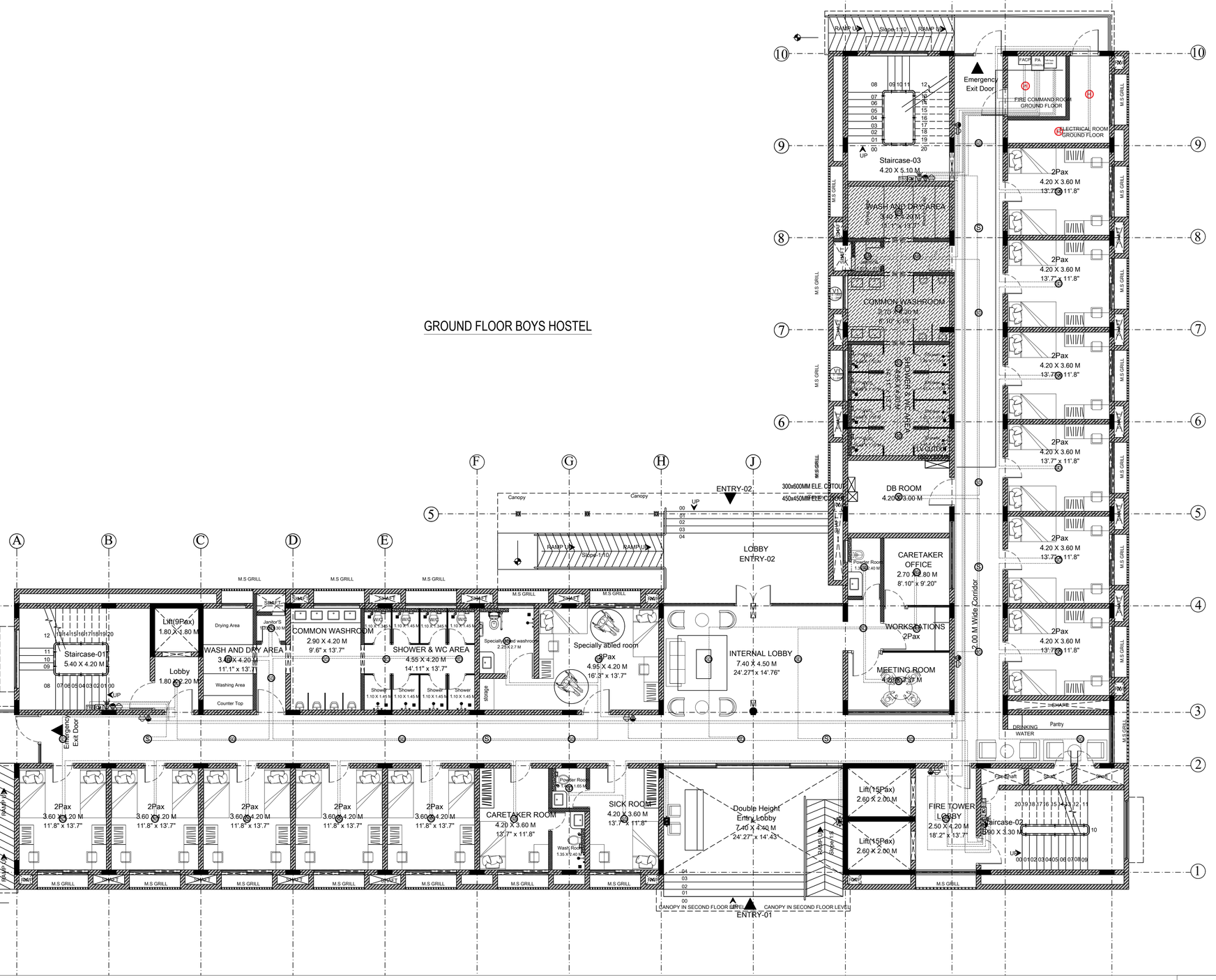
FIRE DRAWING

DRAWING TITLE:
FIRE FIGHTING SCHEMATIC LAYOUT

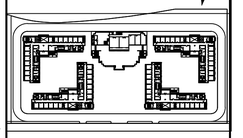
SCALE : NTS (A2)	REVISION NO: R0
DATE	ORIENTATION:
DESIGNED BY	
DEALT BY	
CHECKED BY	DRAWING NO: **TD-FF-104**

FAPA drawing Set

GROUND FLOOR BOYS HOSTEL



KEY PLAN



SYMBOL	DESCRIPTION
	2Cx1.5 SQMM CU. FRLS. CABLE IN 25MM ø PVC CONDUIT
	2Cx1.5 SQMM CU. FRLS .CABLE IN 25MM ø PVC CONDUIT
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø PVC CONDUIT / CABLE TRAY
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø PVC CONDUIT FOR TALK BACK SYSTEM

LEGEND FOR FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
S	CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING
S	SMOKE DETECTOR	ON TRUE/FALSE CEILING
	MANUAL CALL POINT	ON WALL(+1200mm)
	SOUNDER WITH STROBE	ON WALL(+1800mm)
	PAS SPEAKER	ON TRUE WALL
TBS	TALK BACK SYSTEM	ON TRUE WALL
H	HEAT DETECTOR	ON TRUE/FALSE CEILING
R	RESPONSE INDICATOR	ON FALSE CEILING
	BELOW DETECTOR	ON FALSE CEILING
FIM	FAULT ISOLATION MODULE	ON TRUE CEILING
CM	CONTROL MODULE	ON TRUE CEILING
MM	MONITOR MODULE	ON TRUE CEILING

LEGEND FOR FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	GF	1F	2F	3F	4F	5F	6F	TF	TOTAL
S	CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING	05	05	05	05	05	05	05	00	35
S	SMOKE DETECTOR	ON TRUE/FALSE CEILING	49	47	48	47	44	47	48	00	330
	MANUAL CALL POINT	ON WALL(+1200mm)	08	08	08	08	08	08	08	03	59
	SOUNDER WITH STROBE	ON WALL(+1800mm)	08	08	08	08	08	08	08	03	59
	PAS WALL MOUNTED SPEAKER	ON TRUE WALL	03	03	03	03	03	03	03	03	24
TBS	TALK BACK SYSTEM	ON TRUE WALL	03	03	03	03	03	03	03	03	24
CM	CONTROL MODULE	ON TRUE CEILING	03	03	03	03	03	03	03	03	24
MM	MONITOR MODULE	ON TRUE CEILING	00	00	00	00	00	00	00	00	00
	BEAM DETECTOR (TRANSMITTER/RECIVER)	ON BEAM	02	00	00	02	02	00	00	00	06

ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT: Birla Institute of Technology Mesra,Ranchi(India)-835215

JOB TITLE : BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

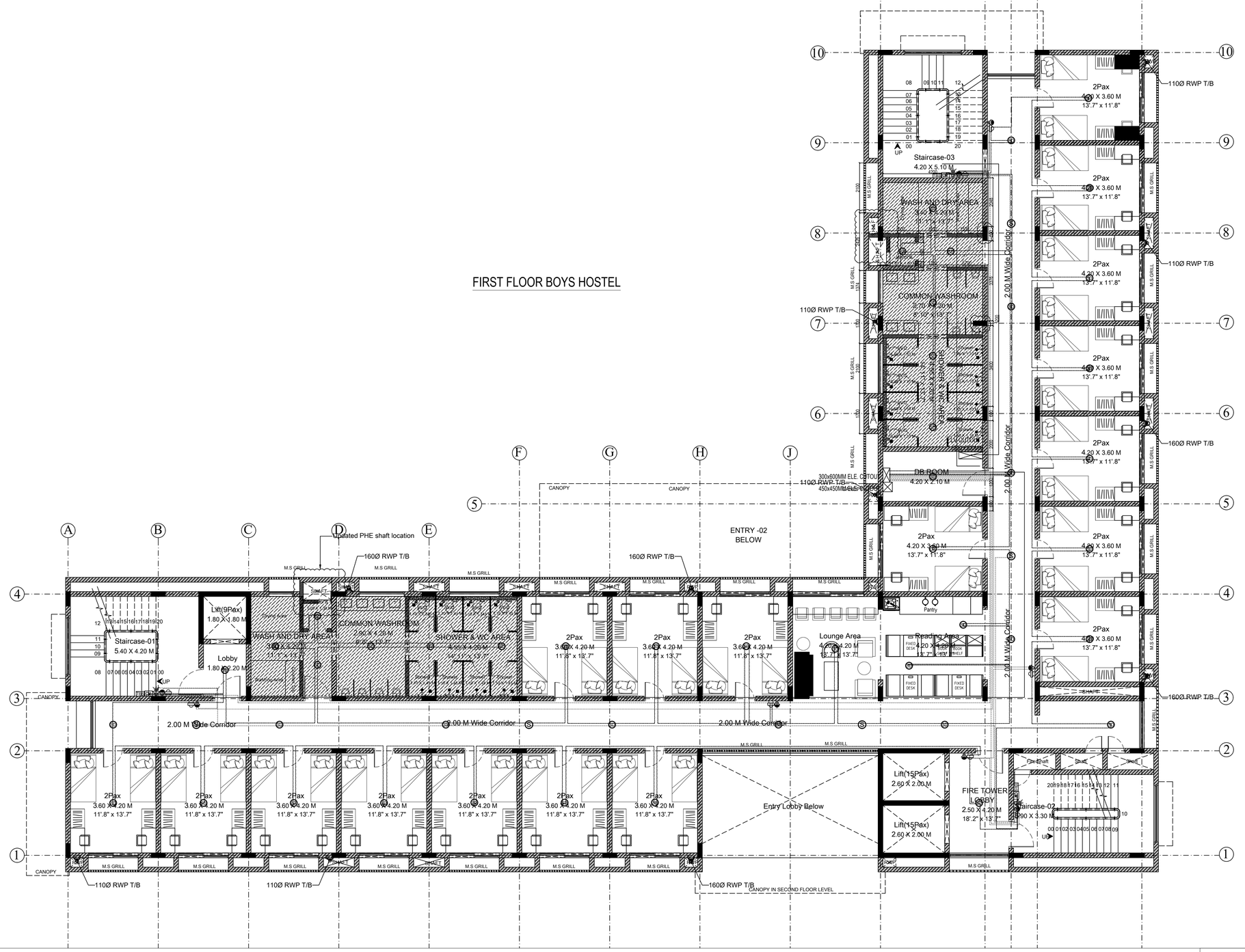
APPROVED BY:

ELECTRICAL DRAWING

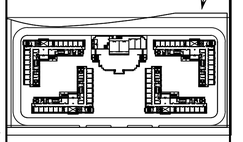
DRAWING TITLE: GROUND FLOOR FAPA LAYOUT

SCALE	: 1: 120(A1)
DATE	
DESIGNED BY	
DEALT BY	
CHECKED BY	
REVISION NO:	R0
ORIENTATION:	NORTH
DRAWING NO:	BT-BH-EE-055

FIRST FLOOR BOYS HOSTEL



KEY PLAN



SYMBOL	DESCRIPTION
	2Cx1.5 SQMM CU. FRLS. CABLE IN 25MM ø PVC CONDUIT
	2Cx1.5 SQMM CU. FRLS .CABLE IN 25MM ø PVC CONDUIT
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø PVC CONDUIT / CABLE TRAY
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø PVC CONDUIT FOR TALK BACK SYSTEM

LEGEND FOR FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
S	CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING
SD	SMOKE DETECTOR	ON TRUE/FALSE CEILING
	MANUAL CALL POINT	ON WALL(+1200mm)
	SOUNDER WITH STROBE	ON WALL(+1800mm)
	PAS SPEAKER	ON TRUE WALL
TBS	TALK BACK SYSTEM	ON TRUE WALL
H	HEAT DETECTOR	ON TRUE/FALSE CEILING
RI	RESPONSE INDICATOR	ON FALSE CEILING
	BELOW DETECTOR	ON FALSE CEILING
FIM	FAULT ISOLATION MODULE	ON TRUE CEILING
CM	CONTROL MODULE	ON TRUE CEILING
MM	MONITOR MODULE	ON TRUE CEILING

LEGEND FOR FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	GF	1F	2F	3F	4F	5F	6F	TF	TOTAL
S	CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING	05	05	05	05	05	05	00	35	
SD	SMOKE DETECTOR	ON TRUE/FALSE CEILING	49	47	48	47	44	47	48	00	330
	MANUAL CALL POINT	ON WALL(+1200mm)	08	08	08	08	08	08	08	03	59
	SOUNDER WITH STROBE	ON WALL(+1800mm)	08	08	08	08	08	08	08	03	59
	PAS WALL MOUNTED SPEAKER	ON TRUE WALL	03	03	03	03	03	03	03	03	24
TBS	TALK BACK SYSTEM	ON TRUE WALL	03	03	03	03	03	03	03	03	24
CM	CONTROL MODULE	ON TRUE CEILING	03	03	03	03	03	03	03	03	24
MM	MONITOR MODULE	ON TRUE CEILING	00	00	00	00	00	00	00	00	00
	BEAM DETECTOR (TRANSMITTER/RECIVER)	ON BEAM	02	00	00	02	02	00	00	00	06

ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

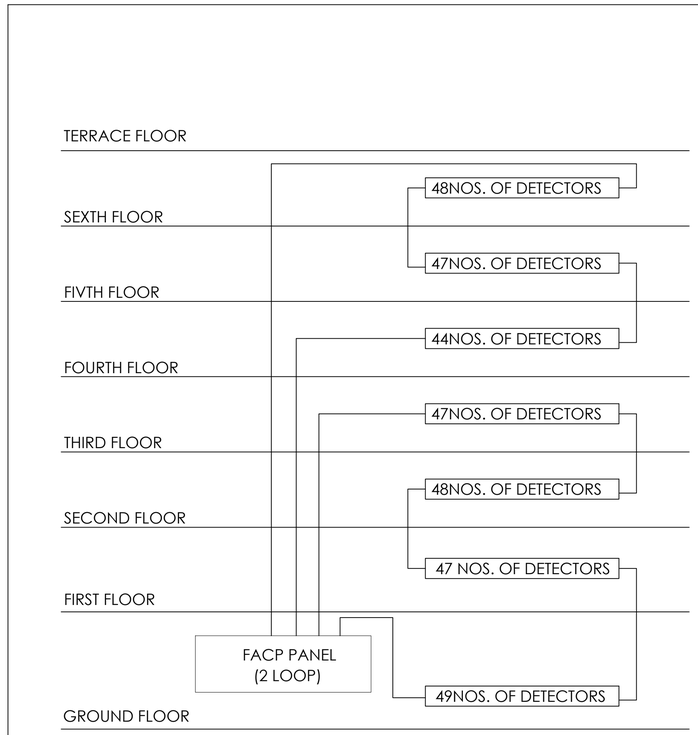
APPROVED BY:

ELECTRICAL DRAWING

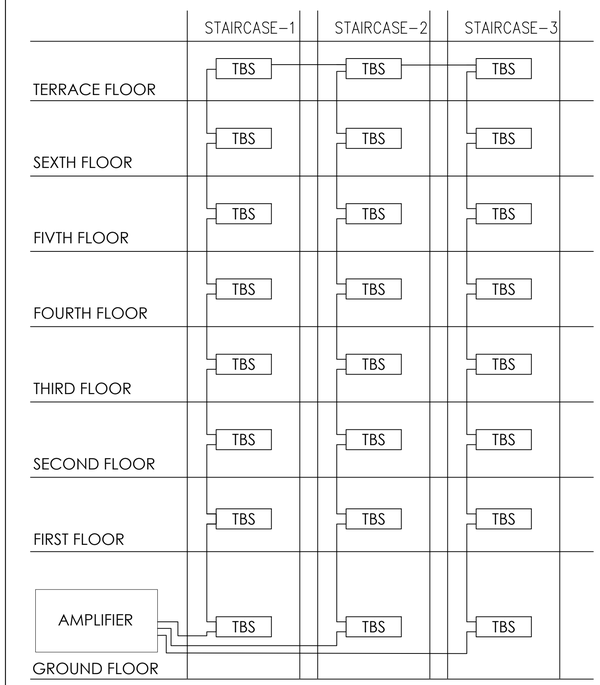
DRAWING TITLE:

TYPICAL FLOOR (1st to 6th)
FAPA LAYOUT

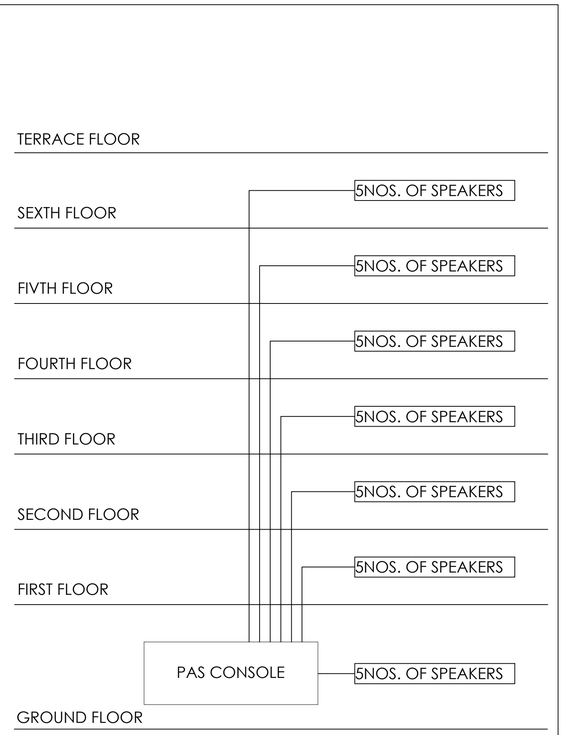
SCALE	: 1: 120(A1)	REVISION NO:	ORIENTATION:
DATE		R0	NORTH
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO:	BT-BH-EE-056



PRELIMINARY FAS SCHEMATIC DIAGRAM



PRELIMINARY TALK BACK SYSTEM SCHEMATIC DIAGRAM



PRELIMINARY PAS SCHEMATIC DIAGRAM

SYMBOL	DESCRIPTION
	2Cx1.5 SQMM CU. FRLS. CABLE IN 25MM ø PVC CONDUIT
	2Cx1.5 SQMM CU. FRLS .CABLE IN 25MM ø PVC CONDUIT
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø PVC CONDUIT / CABLE TRAY
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø PVC CONDUIT FOR TALK BACK SYSTEM

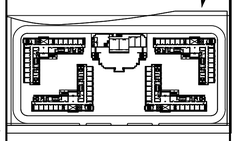
LEGEND FOR FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
S	CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING
S	SMOKE DETECTOR	ON TRUE/FALSE CEILING
	MANUAL CALL POINT	ON WALL(+1200mm)
	SOUNDER WITH STROBE	ON WALL(+1800mm)
	PAS SPEAKER	ON TRUE WALL
TBS	TALK BACK SYSTEM	ON TRUE WALL
H	HEAT DETECTOR	ON TRUE/FALSE CEILING
R	RESPONSE INDICATOR	ON FALSE CEILING
	BELOW DETECTOR	ON FALSE CEILING
FIM	FAULT ISOLATION MODULE	ON TRUE CEILING
CM	CONTROL MODULE	ON TRUE CEILING
MM	MONITOR MODULE	ON TRUE CEILING

LEGEND FOR FIRE ALARM SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	GF	1F	2F	3F	4F	5F	6F	TF	TOTAL
S	CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING	05	05	05	05	05	05	05	00	35
S	SMOKE DETECTOR	ON TRUE/FALSE CEILING	49	47	48	47	44	47	48	00	330
	MANUAL CALL POINT	ON WALL(+1200mm)	08	08	08	08	08	08	08	03	59
	SOUNDER WITH STROBE	ON WALL(+1800mm)	08	08	08	08	08	08	08	03	59
	PAS WALL MOUNTED SPEAKER	ON TRUE WALL	03	03	03	03	03	03	03	03	24
TBS	TALK BACK SYSTEM	ON TRUE WALL	03	03	03	03	03	03	03	03	24
CM	CONTROL MODULE	ON TRUE CEILING	03	03	03	03	03	03	03	03	24
MM	MONITOR MODULE	ON TRUE CEILING	00	00	00	00	00	00	00	00	00
	BEAM DETECTOR (TRANSMITTER/RECIVER)	ON BEAM	02	00	00	02	02	00	00	00	06

KEY PLAN



ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

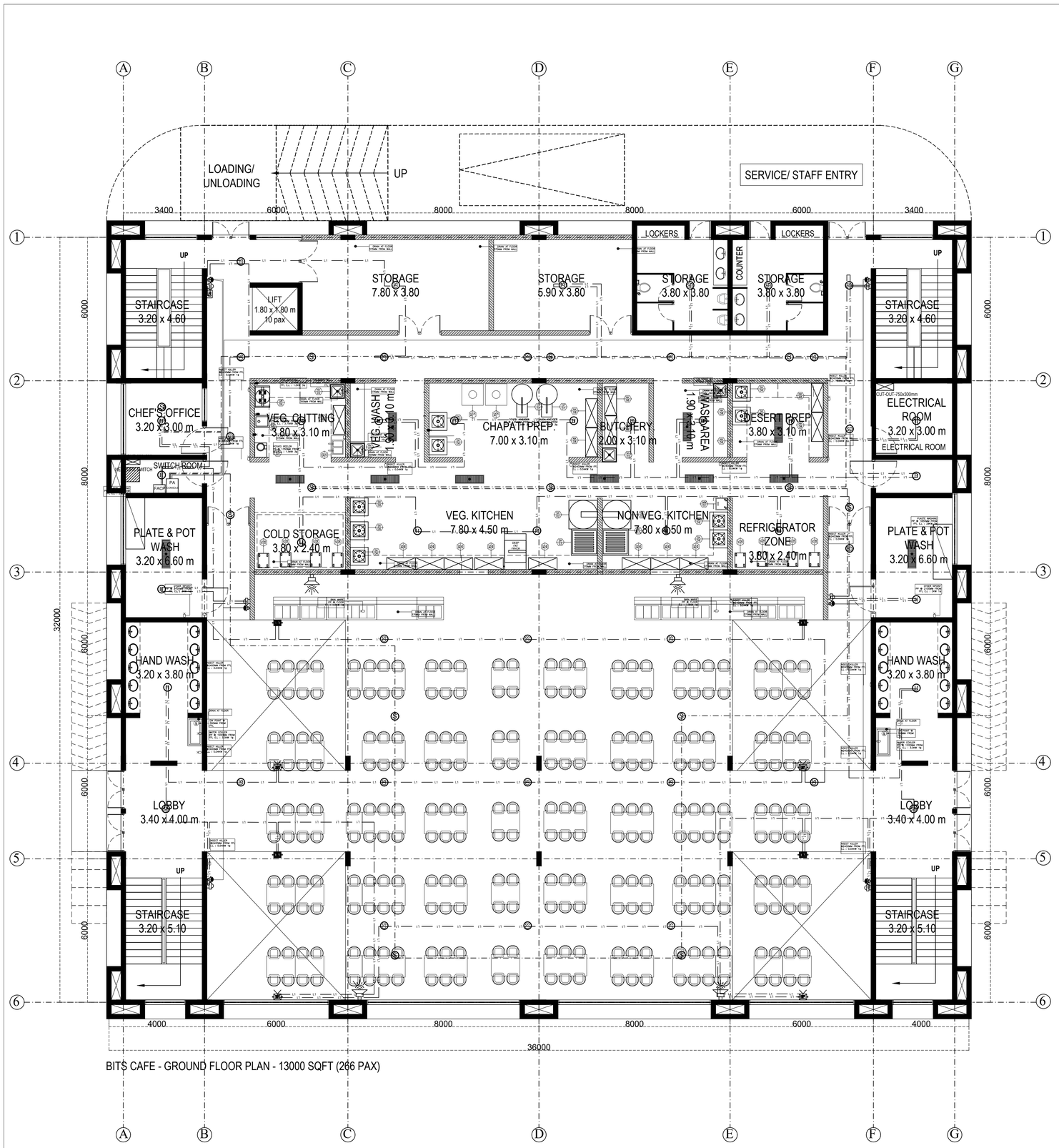
APPROVED BY:

ELECTRICAL DRAWING

DRAWING TITLE:

FAPA SCHEMATIC LAYOUT

SCALE	: 1: 120(A1)	REVISION NO:	ORIENTATION: NORTH
DATE	: 12.03.2026	R0	
DESIGNED BY	: TJ		
DEALT BY	: TJ		
CHECKED BY	: AR	DRAWING NO:	BT-BH-EE-070



BITS CAFE - GROUND FLOOR PLAN - 13000 SQFT (266 PAX)

NOTES:-

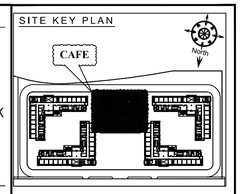
1. ALL SLC LOOP CABLES WILL BE 2Cx1.5SQ.MM.CU.AR. CABLE & LAID DIRECTLY ON SLAB EXCLUDING WALL DROPS(FOR MCP,ETC..) IN WALL DROPS (FOR MCP,ETC..), SLC CABLES WILL BE 2Cx1.5SQ.MM.CU.FLEX. CABLE & LAID THROUGH 20MMϕ FRLS PVC CONDUIT.
2. ALL PAS CABLES WILL BE 2Cx1.5SQ.MM.CU.FLEXIBLE CABLE & LAID THROUGH 20MMϕ FRLS PVC CONDUIT.
3. CABLE TO BE USED FOR SOUNDER POWER, FROM SOUNDER POWER SUPPLY UNIT TO CONTROL MODULE WILL BE 2Cx1.5SQ.MM.CU.AR. CABLE & IT WILL BE LAID DIRECTLY ON SLAB.
4. CABLE TO BE USED FOR SOUNDER POWER FROM CONTROL MODULE TO SOUNDER WILL BE 2Cx1.5SQ.MM.CU.AR. CABLE & IT WILL BE LAID DIRECTLY ON SLAB.

LEGEND FOR FIRE ALARM AND CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	QTY
S	PAS CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING	12 Nos.
H	HEAT DETECTOR	ON TRUE/FALSE CEILING	20 Nos.
SD	ABOVE/SMOKE DETECTOR	ON TRUE/FALSE CEILING	27 Nos.
CM	CONTROL MODULE	ON TRUE CEILING	01 Nos.
	MANUAL CALL POINT	ON WALL(+1200mm)	06 Nos.
	SOUNDER WITH STROBE	ON WALL(+2500mm)	06 Nos.
	WALL MOUNTED SPEAKER	ON WALL(+2500mm)	04 Nos.
	BEAM DETECTOR (RECEIVER&TRANSMITTER)		04

SYMBOL	DESCRIPTION
	2Cx1.5 SQMM CU. AR. CABLE IN 25MM ø FOR FAS
	2Cx1.5 SQMM CU. FLEX. CABLE IN 25MM ø HOOTER
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø FOR PA
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø CONDUIT FOR TALK BACK SYSTEM

SITE KEY PLAN



ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	08.03.26	APPROVAL DWG	APPANNA

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

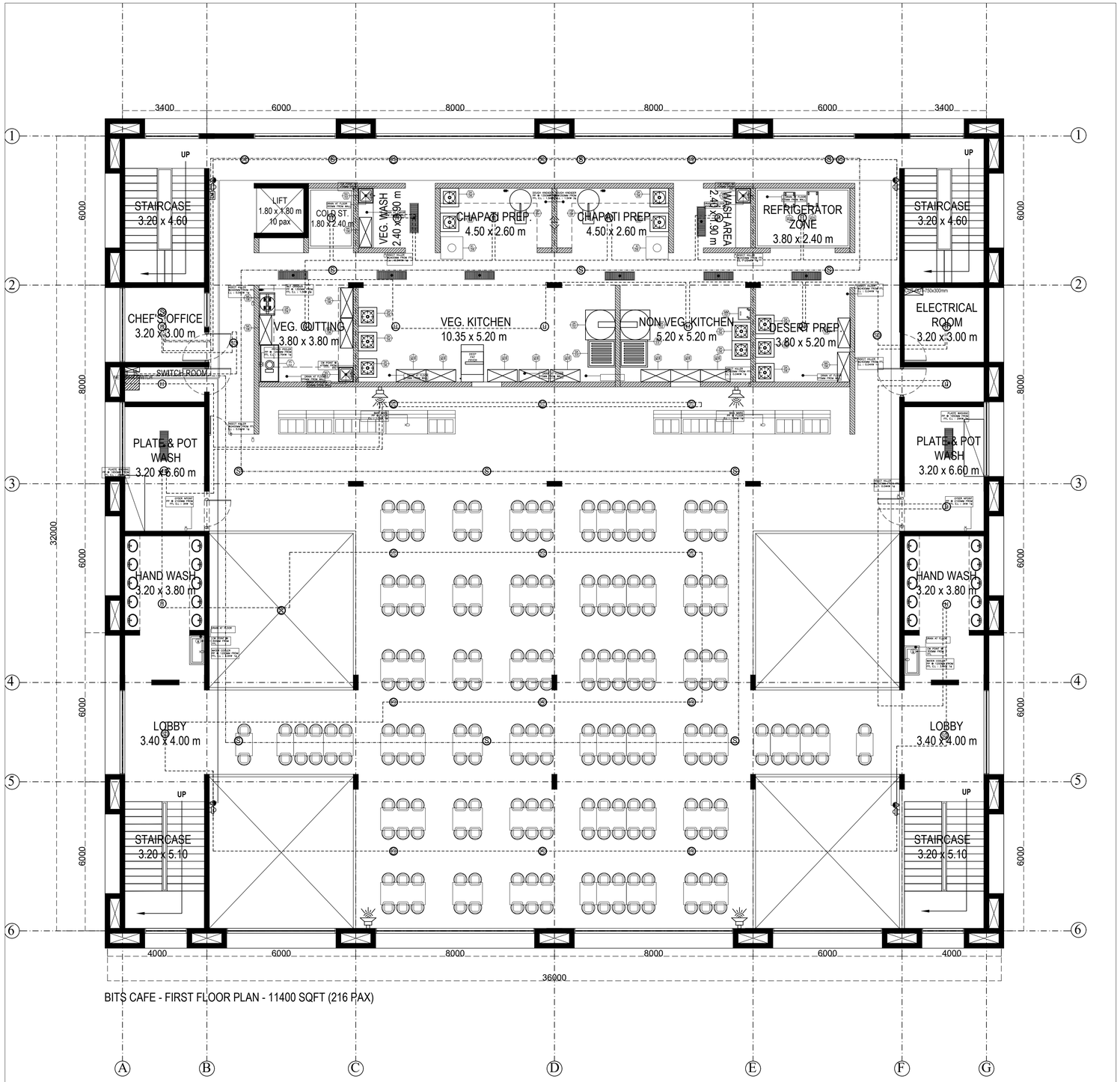
SEAL:

APPROVED BY:

ELECTRICAL DRAWING

DRAWING TITLE:
BITS CAFE
GROUND FLOOR
FAPA LAYOUT

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION: NORTH
DATE		R0	
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO:	BT-BH-EE-005-1



BITS CAFE - FIRST FLOOR PLAN - 11400 SQFT (216 PAX)

NOTES:–

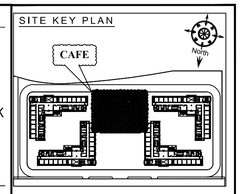
1. ALL SLC LOOP CABLES WILL BE 2Cx1.5SQ.MM.CU.AR. CABLE & LAID DIRECTLY ON SLAB EXCLUDING WALL DROPS(FOR MCP,ETC..) IN WALL DROPS (FOR MCP,ETC..), SLC CABLES WILL BE 2Cx1.5SQ.MM.CU.FLEX. CABLE & LAID THROUGH 20MMø FRLS PVC CONDUIT.
2. ALL PAS CABLES WILL BE 2Cx1.5SQ.MM.CU.FLEXIBLE CABLE & LAID THROUGH 20MMø FRLS PVC CONDUIT.
3. CABLE TO BE USED FOR SOUNDER POWER, FROM SOUNDER POWER SUPPLY UNIT TO CONTROL MODULE WILL BE 2Cx1.5SQ.MM.CU.AR. CABLE & IT WILL BE LAID DIRECTLY ON SLAB.
4. CABLE TO BE USED FOR SOUNDER POWER FROM CONTROL MODULE TO SOUNDER WILL BE 2Cx1.5SQ.MM.CU.AR. CABLE & IT WILL BE LAID DIRECTLY ON SLAB.

LEGEND FOR FIRE ALARM AND CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	QTY
S	PAS CEILING MOUNTED SPEAKER	ON TRUE/FALSE CEILING	12 Nos.
H	HEAT DETECTOR	ON TRUE/FALSE CEILING	18 Nos.
S/H	ABOVE/SMOKE DETECTOR	ON TRUE/FALSE CEILING	22 Nos.
CM	CONTROL MODULE	ON TRUE CEILING	01 Nos.
	MANUAL CALL POINT	ON WALL(+1200mm)	04 Nos.
	SOUNDER WITH STROBE	ON WALL(+2500mm)	04 Nos.
	WALL MOUNTED SPEAKER	ON WALL(+2500mm)	04 Nos.

SYMBOL	DESCRIPTION
	2Cx1.5 SQMM CU. AR. CABLE IN 25MM ø FOR FAS
	2Cx1.5 SQMM CU. FLEX. CABLE IN 25MM ø HOOTER
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø FOR PA
	2Cx1.5 SQMM SHILDED CABLE IN 25MM ø CONDUIT FOR TALK BACK SYSTEM

SITE KEY PLAN



ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	08.03.26	APPROVAL DWG	APPANNA

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

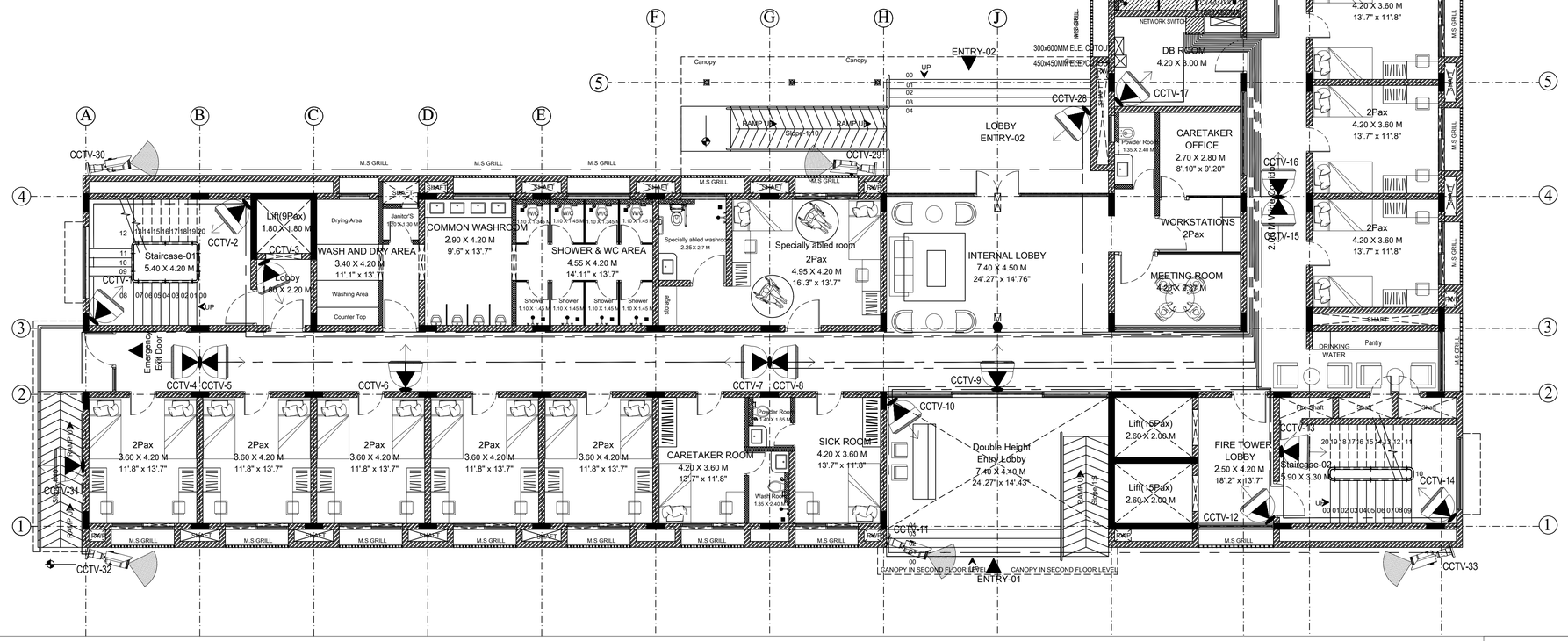
APPROVED BY:

DRAWING TITLE:
BITS CAFE
FIRST FLOOR
FAPA LAYOUT

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION: NORTH
DATE		R0	
DESIGNED BY			
DEALT BY			
CHECKED BY		DRAWING NO: BT-BH-EE-006-1	

CCTV drawing Set

GROUND FLOOR BOYS HOSTEL



LEGEND FOR CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	B1 QTY
	TURRET CAMERA	ON CEILING	25 Nos
	BULLET CAMERA	ON WALL	08 Nos
	CAT-6 CABLE (POE) 20mm ∅ CONDUIT		
	CAT-6 CABLE (POE) 25mm ∅ CONDUIT		

KEY PLAN

North

ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

DEVARAJA T.H
(EVP - ELECTRICAL)

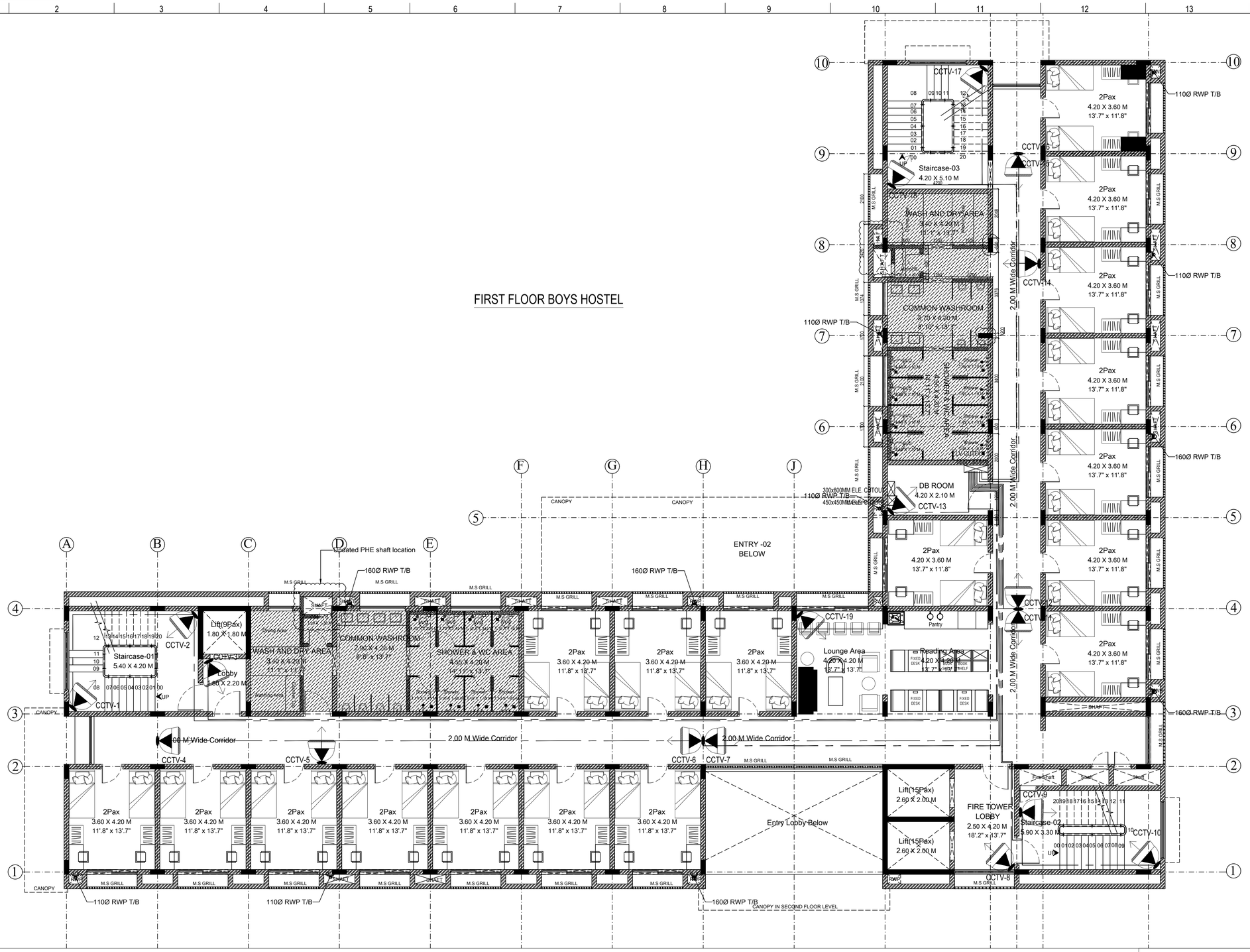
ELECTRICAL DRAWING

DRAWING TITLE:

GROUND FLOOR
CCTV LAYOUT

SCALE	: 1: 120(A1)	REVISION NO:	ORIENTATION:
DATE	: 12.03.2026	R0	NORTH
DESIGNED BY	: TJ		
DEALT BY	: TJ		
CHECKED BY	: AR	DRAWING NO:	
		BT-BH-EE-062	

FIRST FLOOR BOYS HOSTEL



LEGEND FOR CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	B1 QTY
	TURRET CAMERA	ON CEILING	19 Nos
	BULLET CAMERA	ON WALL	00 Nos
	CAT-6 CABLE (POE) 20mm ∅ CONDUIT		
	CAT-6 CABLE (POE) 25mm ∅ CONDUIT		

KEY PLAN

ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

DEVARAJA.T.H
(EVP - ELECTRICAL)

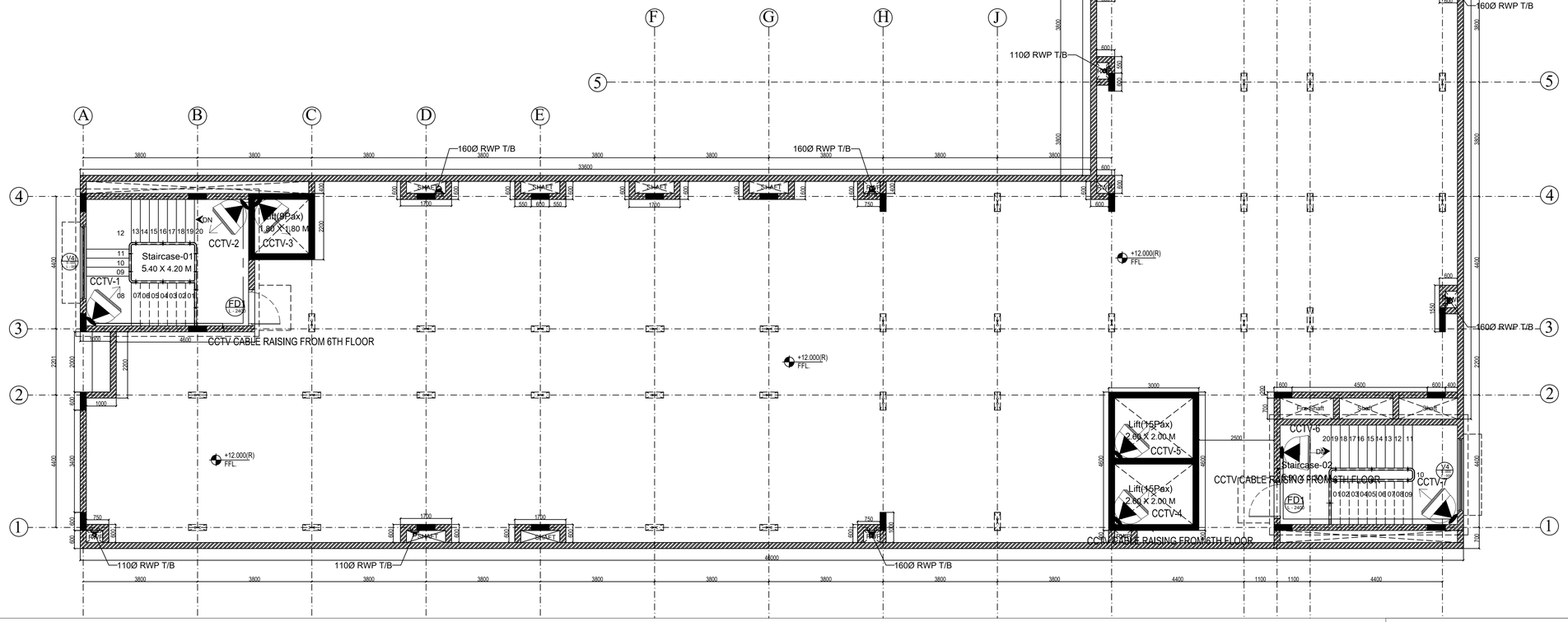
ELECTRICAL DRAWING

DRAWING TITLE:

TYPICAL FLOOR (1st to 6th)
CCTV LAYOUT

SCALE	: 1: 120(A1)	REVISION NO:	ORIENTATION:
DATE	: 12.03.2026	R0	NORTH
DESIGNED BY	: TJ		
DEALT BY	: TJ		
CHECKED BY	: AR	DRAWING NO:	BT-BH-EE-063

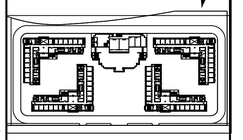
TERRACE FLOOR BOYS HOSTEL



LEGEND FOR CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	B1 QTY
	TURRET CAMERA	ON CEILING	09 Nos
	BULLET CAMERA	ON WALL	00 Nos
	CAT-6 CABLE (POE) 20mm ∅ CONDUIT		
	CAT-6 CABLE (POE) 25mm ∅ CONDUIT		

KEY PLAN



ELECTRICAL REVISIONS:

REV NO.	DATE	DESCRIPTION	APPROVED BY

CLIENT:

Birla Institute of Technology
Mesra,Ranchi(India)-835215

JOB TITLE :

BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:

DEVARAJA.T.H
(EVP - ELECTRICAL)

ELECTRICAL DRAWING

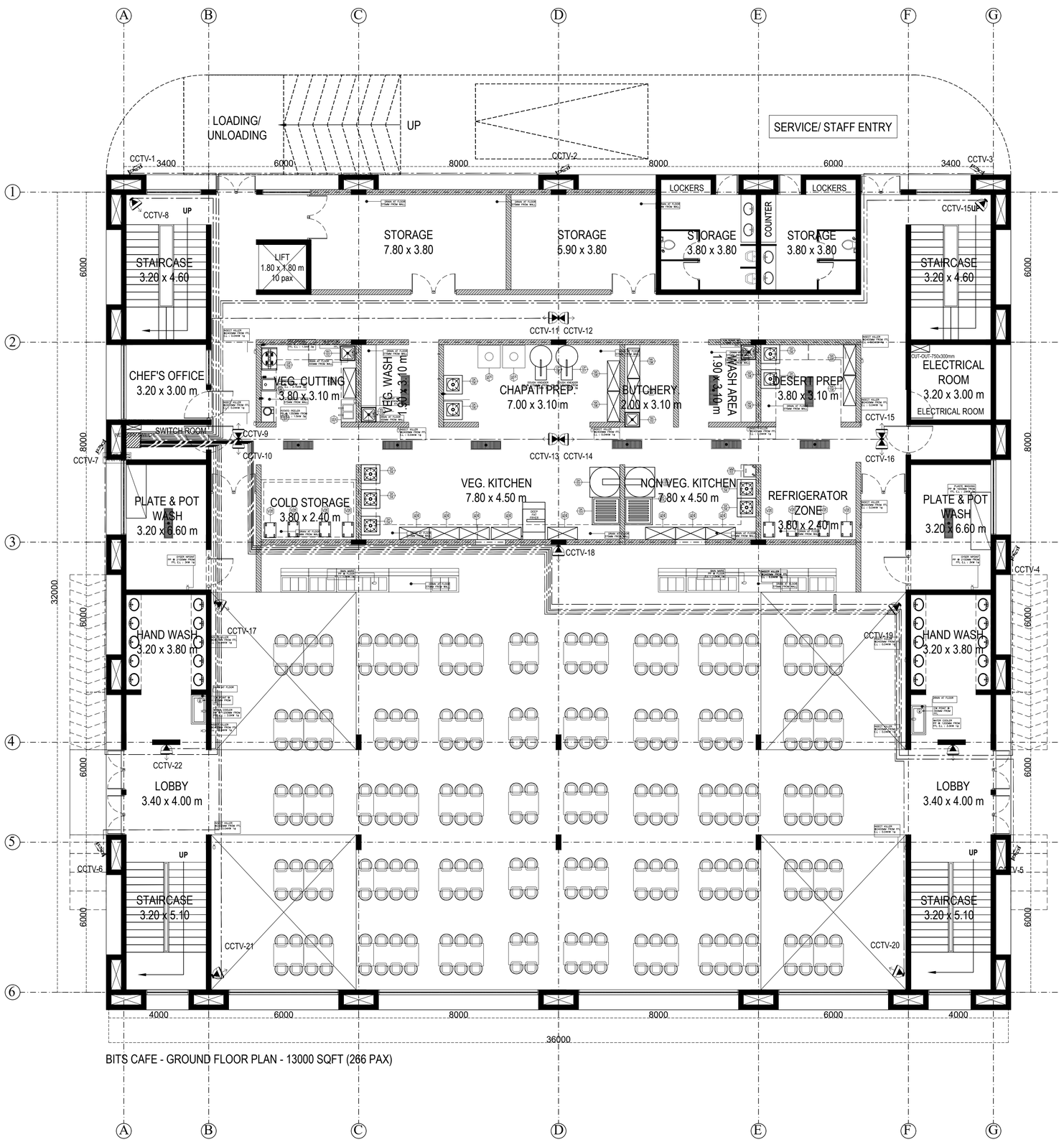
DRAWING TITLE:

TERRACE FLOOR
CCTV LAYOUT

SCALE	: 1: 120(A1)	REVISION NO:	ORIENTATION:
DATE	: 12.03.2026	R0	NORTH
DESIGNED BY	: TJ		
DEALT BY	: TJ		
CHECKED BY	: AR	DRAWING NO:	BT-BH-EE-069

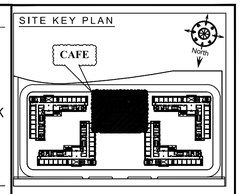
LEGEND FOR CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	B1 QTY
	TURRET CAMERA	ON / WALLCEILING	15 Nos
	BULLET CAMERA	ON WALL	07 Nos
	CAT-6 CABLE (POE) 20mm Ø CONDUIT		



BITS CAFE - GROUND FLOOR PLAN - 13000 SQFT (266 PAX)

SITE KEY PLAN



ELECTRICAL REVISIONS:

REV NO	DATE	DESCRIPTION	APPROVED BY
R0	08.03.26	APPROVAL DWG	APPANNA

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:
DEVARAJA.T.H
(EVP - ELECTRICAL)

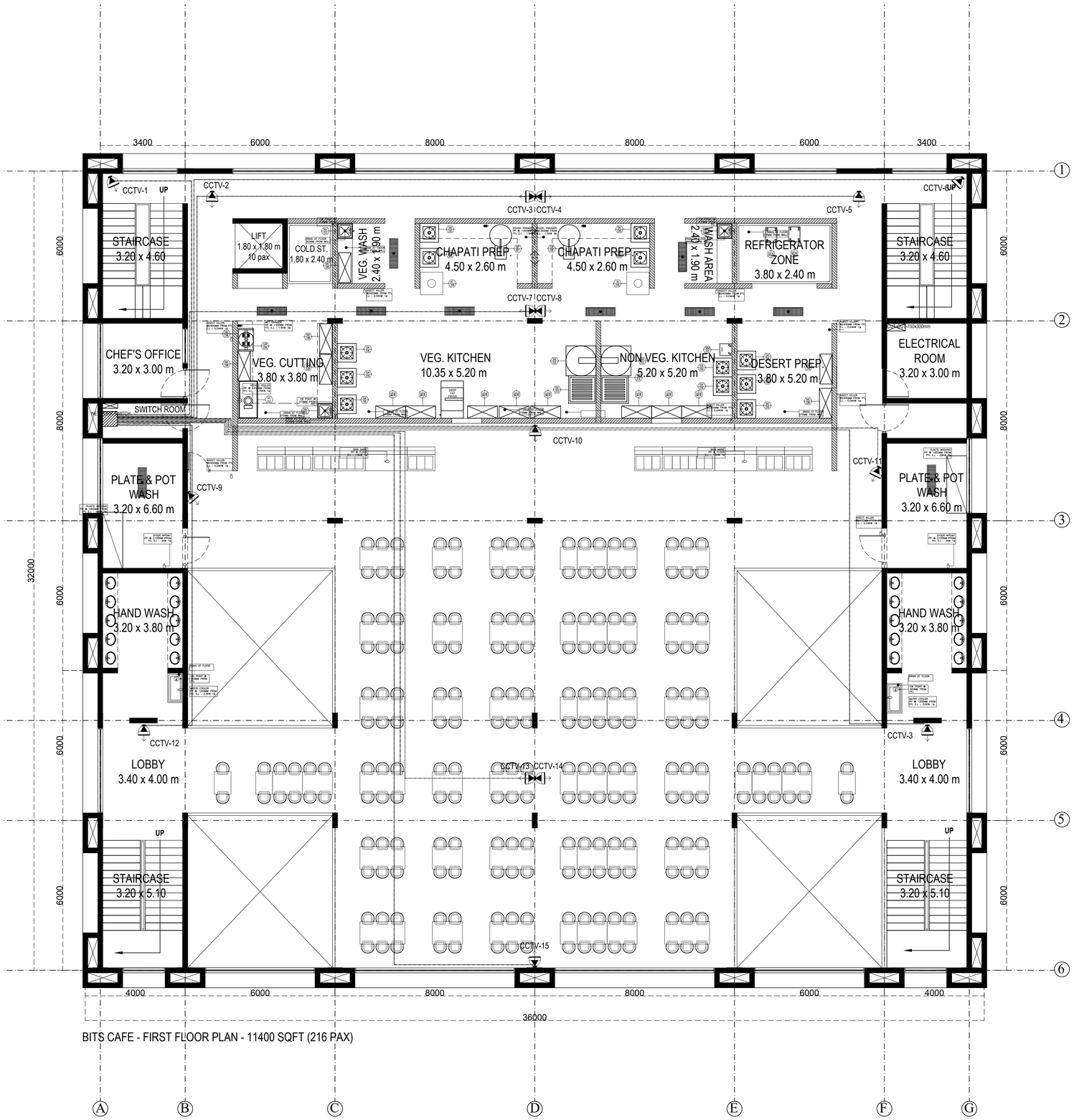
ELECTRICAL DRAWING

DRAWING TITLE:
BITS CAFE
GROUND FLOOR
CCTV LAYOUT

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION:
DATE	: 10.03.2026	R0	NORTH
DESIGNED BY	: AR		
DEALT BY	: KP		
CHECKED BY	: APPANNA	DRAWING NO: BT-BH-EE-005-2	

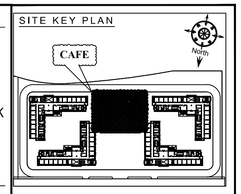
LEGEND FOR CCTV SYSTEM

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	B1 QTY
	TURRET CAMERA	ON / WALLCEILING	17 Nos
	BULLET CAMERA	ON WALL	00 Nos
	CAT-6 CABLE (POE) 20mm Ø CONDUIT		



BITS CAFE - FIRST FLOOR PLAN - 11400 SQFT (216 PAX)

SITE KEY PLAN



ELECTRICAL REVISIONS:			
REV NO.	DATE	DESCRIPTION	APPROVED BY
R0	08.03.26	APPROVAL DWG	APPANNA

CLIENT:
Birla Institute of Technology
Mesra,Ranchi(India)-835215

PROJECT
BOYS HOSTEL AT BIT MESRA

ARCHITECTS

STRUCTURAL CONSULTANT:

PHE, FIRE & ELECTRICAL CONSULTANT:

PURPOSE: TENDER DRAWING

SEAL:

APPROVED BY:
DEVARAJA.T.H
(EVP - ELECTRICAL)

ELECTRICAL DRAWING

DRAWING TITLE:
BITS CAFE
FIRST FLOOR
CCTV LAYOUT

SCALE	: NTS(A1)	REVISION NO:	ORIENTATION:
DATE	: 10.03.2026	R0	NORTH
DESIGNED BY	: AR		
DEALT BY	: KP		
CHECKED BY	: APPANNA	DRAWING NO:	
		BT-BH-EE-006-2	