
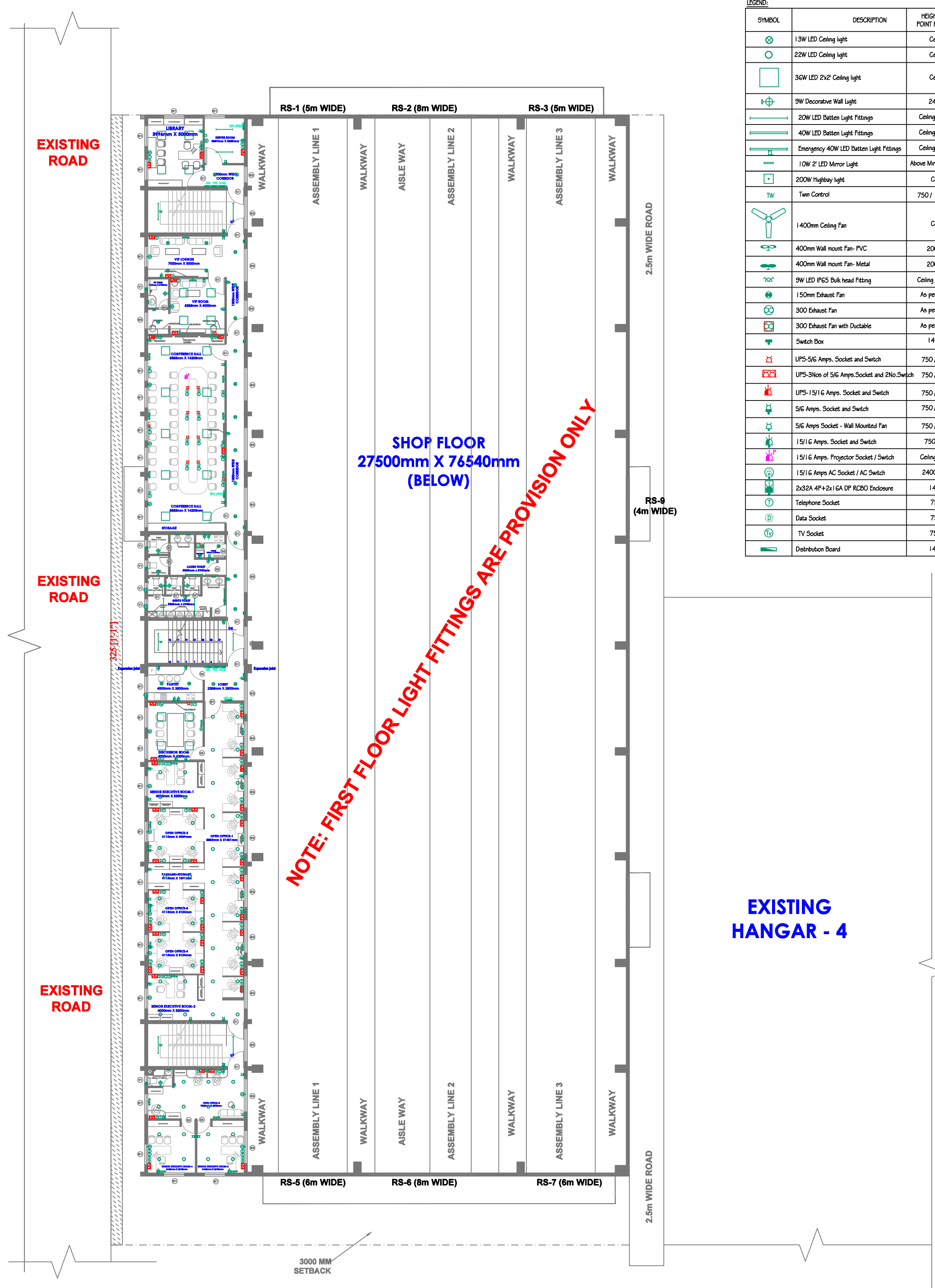


LEGEND:		
SYMBOL	DESCRIPTION	HEIGHT OF THE POINT FROM P.F.L.
	13W LED Ceiling light	Ceiling
	22W LED Ceiling light	Ceiling
	36W LED 2x2' Ceiling light	Ceiling
	9W Decorative Wall Light	2400mm.
	20W LED Batten Light Fittings	Ceiling / 2400mm.
	40W LED Batten Light Fittings	Ceiling / 2400mm.
	Emergency 40W LED Batten Light Fittings	Ceiling / 2400mm.
	10W 2' LED Mirror Light	Above Mirror / 2000mm
	200W Highbay light	Ceiling
	Twin Control	750 / 1450mm.
	1400mm Ceiling Fan	Ceiling
	400mm Wall mount Fan- PVC	2000mm
	400mm Wall mount Fan- Metal	2000mm
	9W LED IP65 Bulk head Fitting	Ceiling / 2000mm.
	150mm Exhaust Fan	As per Civil Plan
	300 Exhaust Fan	As per Civil Plan
	300 Exhaust Fan with Ductable	As per Civil Plan
	Switch Box	1450mm.
	UPS-5/6 Amps. Socket and Switch	750 / 1450mm.
	UPS-3Nos of 5/6 Amps.Socket and 2No.Switch	750 / 1450mm.
	UPS-15/16 Amps. Socket and Switch	750 / 1450mm.
	5/6 Amps. Socket and Switch	750 / 1450mm.
	5/6 Amps Socket - Wall Mounted Fan	750 / 2400mm.
	15/16 Amps. Socket and Switch	750 / 1450mm.
	15/16 Amps. Projector Socket / Switch	Ceiling / 750mm.
	15/16 Amps AC Socket / AC Switch	2400 / 1450mm.
	2x32A 4P+2x16A DP RCBO Enclosure	1450mm
	Telephone Socket	750mm.
	Data Socket	750mm.
	TV Socket	750mm.
	Distribution Board	1450mm.

GROUND FLOOR ELECTRICAL LAYOUT

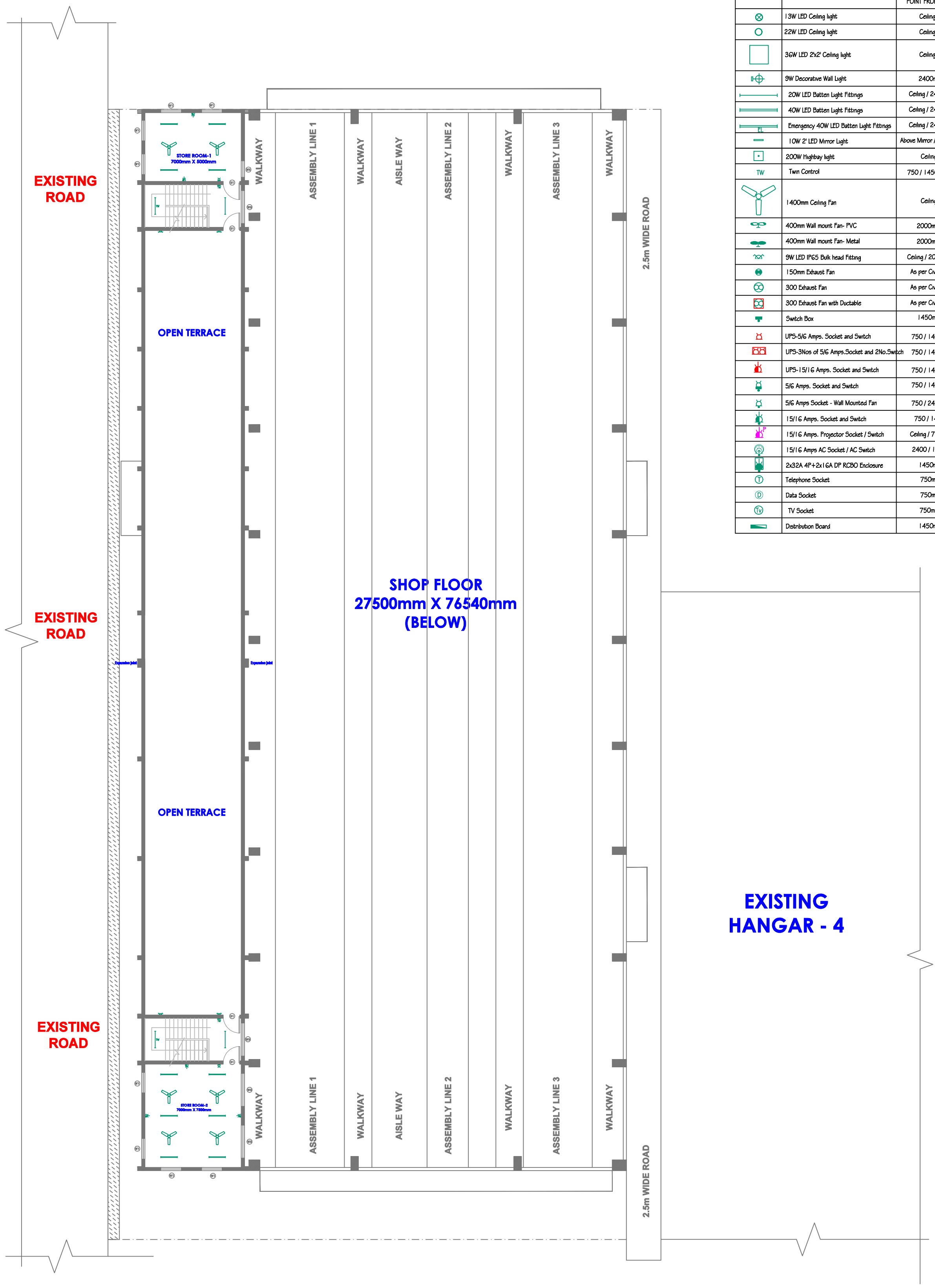
PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	 SG STRUCTURAL ENGINEERS ENGINEERS/ARCHITECTS 53, M.A. Patelwady Street, K.K. Pudur, Coimbatore-38 Ph: 0422-2450245, 2453323. Email:profsgv1968@gmail.com www.sgstructural.com



LEGEND:		
SYMBOL	DESCRIPTION	HEIGHT OF THE POINT FROM F.F.L.
	13W LED Ceiling light	Ceiling
	22W LED Ceiling light	Ceiling
	36W LED 2x2' Ceiling light	Ceiling
	9W Decorative Wall Light	2400mm.
	20W LED Batten Light Fittings	Ceiling / 2400mm.
	40W LED Batten Light Fittings	Ceiling / 2400mm.
	Emergency 40W LED Batten Light Fittings	Ceiling / 2400mm.
	10W 2' LED Mirror Light	Above Mirror / 2000mm
	200W Highbay light	Ceiling
	Twin Control	750 / 1450mm.
	1400mm Ceiling Fan	Ceiling
	400mm Wall mount Fan- PVC	2000mm
	400mm Wall mount Fan- Metal	2000mm
	9W LED IP65 Bulk head Fitting	Ceiling / 2000mm.
	150mm Exhaust Fan	As per Civil Plan
	300 Exhaust Fan	As per Civil Plan
	300 Exhaust Fan with Ductable	As per Civil Plan
	Switch Box	1450mm.
	UPS-5/6 Amps, Socket and Switch	750 / 1450mm.
	UPS-3Nos of 5/6 Amps.Socket and 2No.Switch	750 / 1450mm.
	UPS-15/16 Amps, Socket and Switch	750 / 1450mm.
	5/6 Amps, Socket and Switch	750 / 1450mm.
	5/6 Amps Socket - Wall Mounted Fan	750 / 2400mm.
	15/16 Amps, Socket and Switch	750 / 1450mm.
	15/16 Amps, Projector Socket / Switch	Ceiling / 750mm.
	15/16 Amps AC Sockets / AC Switch	2400 / 1450mm.
	2x32A 4P+2x16A DP RCBO Enclosure	1450mm
	Telephone Socket	750mm.
	Data Socket	750mm.
	TV Socket	750mm.
	Distribution Board	1450mm.

FIRST FLOOR ELECTRICAL LAYOUT

PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	 S3, W.A. Poinelawmy Street, K.K. Pudur, Coimbatore-38 Ph: 0422-2450245, 2453323, Email:sgprofpr1988@gmail.com www.sgstructural.com



LEGEND:		
SYMBOL	DESCRIPTION	HEIGHT OF THE POINT FROM F.F.L.
	13W LED Ceiling light	Ceiling
	22W LED Ceiling light	Ceiling
	36W LED 2x2' Ceiling light	Ceiling
	9W Decorative Wall Light	2400mm.
	20W LED Batten Light Fittings	Ceiling / 2400mm.
	40W LED Batten Light Fittings	Ceiling / 2400mm.
	Emergency 40W LED Batten Light Fittings	Ceiling / 2400mm.
	10W 2' LED Mirror Light	Above Mirror / 2000mm
	200W Highbay light	Ceiling
	Twin Control	750 / 1450mm.
	1400mm Ceiling Fan	Ceiling
	400mm Wall mount Fan- PVC	2000mm
	400mm Wall mount Fan- Metal	2000mm
	9W LED IP65 Bulk head Fitting	Ceiling / 2000mm.
	150mm Exhaust Fan	As per Civil Plan
	300 Exhaust Fan	As per Civil Plan
	300 Exhaust Fan with Ductable	As per Civil Plan
	Switch Box	1450mm.
	UPS-5/6 Amps. Socket and Switch	750 / 1450mm.
	UPS-3Nos of 5/6 Amps.Socket and 2No.Switch	750 / 1450mm.
	UPS-15/16 Amps. Socket and Switch	750 / 1450mm.
	5/6 Amps. Socket and Switch	750 / 1450mm.
	5/6 Amps Socket - Wall Mounted Fan	750 / 2400mm.
	15/16 Amps. Socket and Switch	750 / 1450mm.
	15/16 Amps. Projector Socket / Switch	Ceiling / 750mm.
	15/16 Amps AC Socket / AC Switch	2400 / 1450mm.
	2x32A 4P+2x16A DP RCBO Enclosure	1450mm
	Telephone Socket	750mm.
	Data Socket	750mm.
	TV Socket	750mm.
	Distribution Board	1450mm.

SECOND FLOOR ELECTRICAL LAYOUT

PROJECT TITLE-	CLIENT-	CONSULTANCY
HANGAR-5	BEML	 SG STRUCTURAL ENGINEERS ENGINEERS/ARCHITECTS S5, M.A. Palanisamy Street, K.K. Nagar, Coimbatore-38 Ph: 0422-2450245, 2453323, Email:sgsge@gmail.com www.sgsstructural.com

SSB-1

MAIN PANEL

PSB-1

LSB-1

LEGEND: -

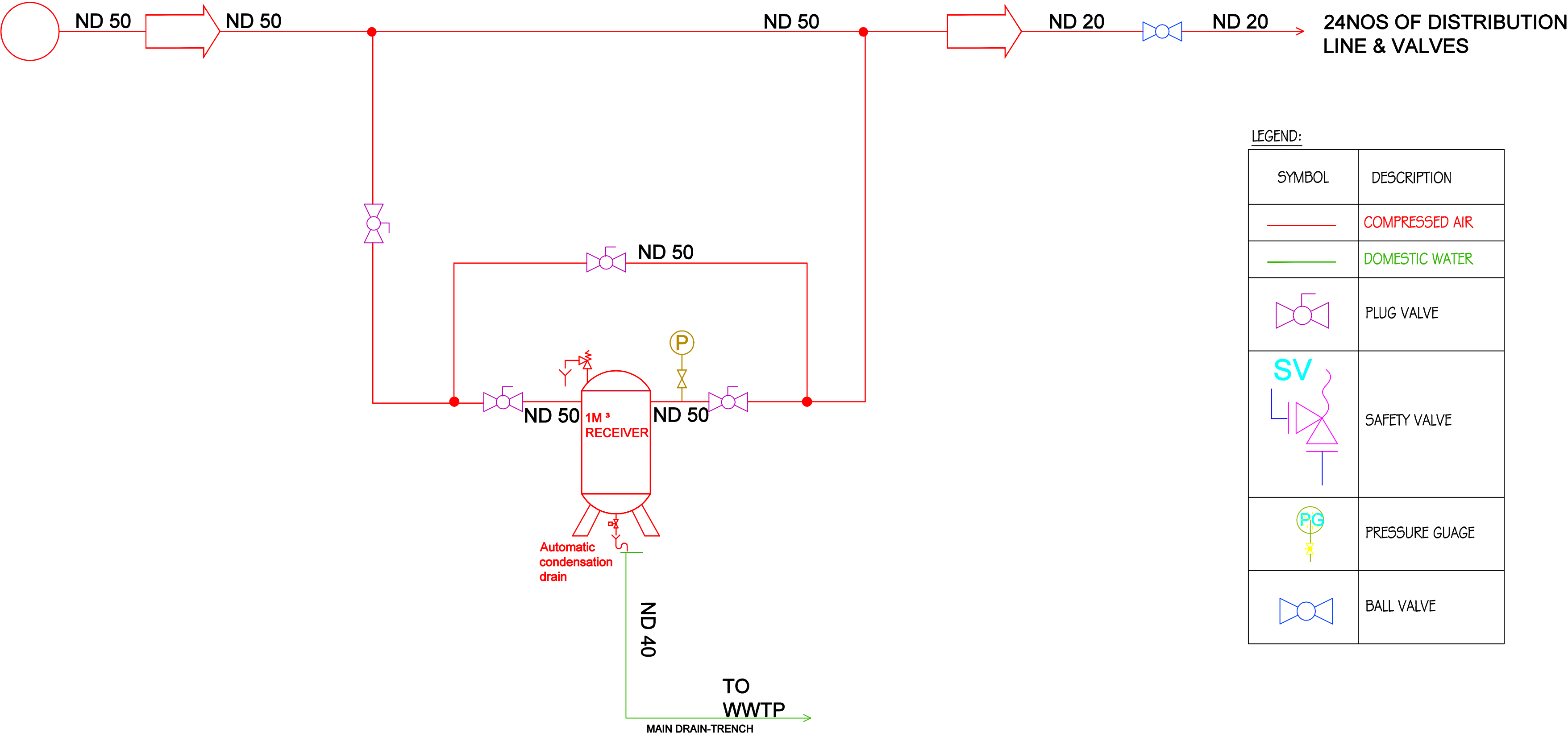
SYMBOL	DESCRIPTION
	ACB
	MCCB
	4P ELCB
	DP ELCB
	4P MCB
	SP MCB
	MULTIFUNCTION METER
	TIMER
	CURRENT TRANSFORMER
	FUSE
	SWITCH FUSE UNIT
	ISOLATOR
	CONTACTOR
	INDICATION LAMP
	INTERLOCK
	ISOLATOR

MAIN SINGLE LINE DIAGRAM

PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	 SG STRUCTURAL ENGINEERS/ARCHITECTS S3, M.A. Palanisamy Street, K.K. Purur, Coimbatore-38 Ph: 0422-2450245, 2453323. Email:sgprgsv1988@gmail.com www.sgstructural.com

FROM EXISTING HANGAR-2 & 4
COMPRESSOR AIRLINE

DISTRIBUTION TO HANGAR-5



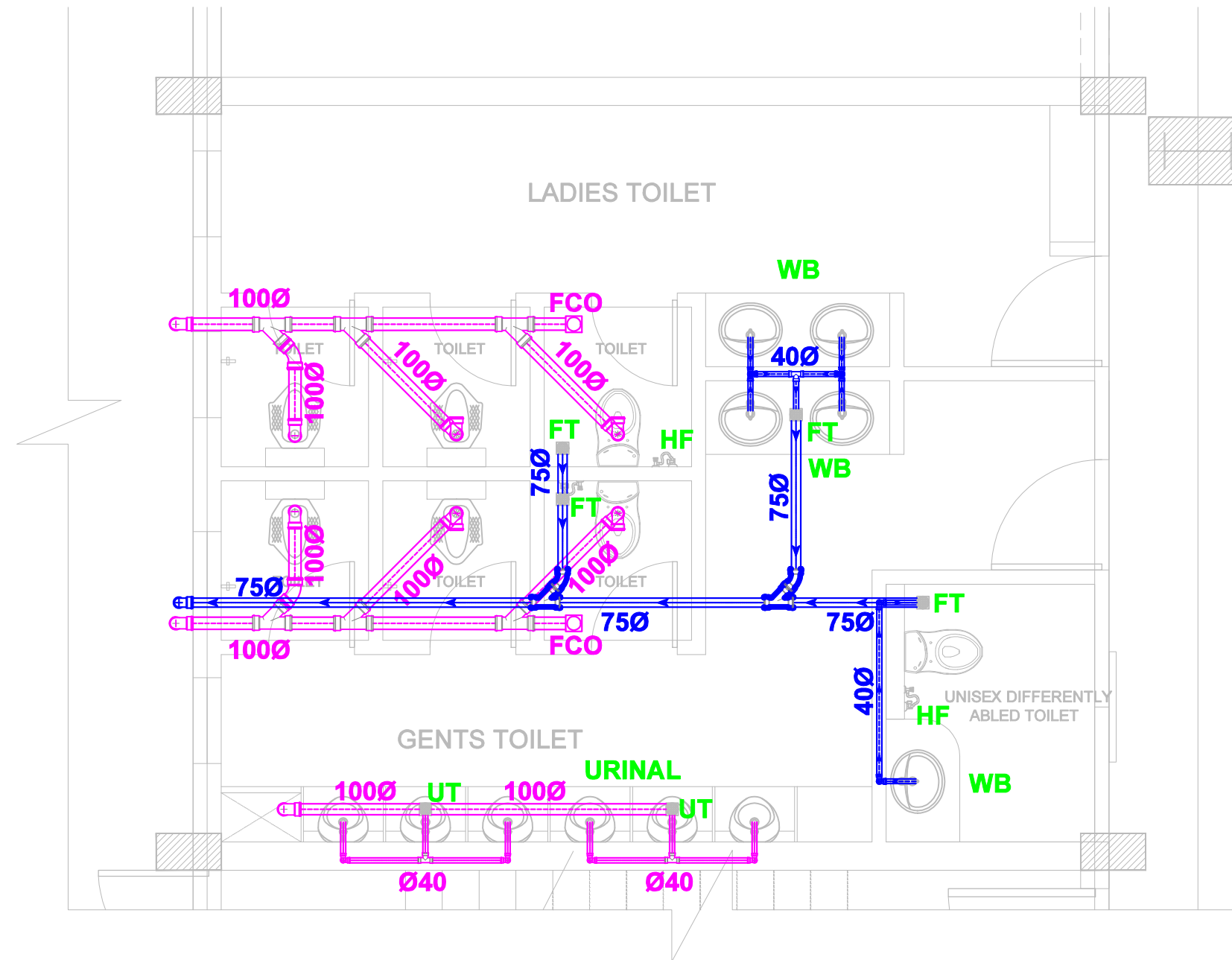
LEGEND:

SYMBOL	DESCRIPTION
—	COMPRESSED AIR
—	DOMESTIC WATER
	PLUG VALVE
	SAFETY VALVE
	PRESSURE GUAGE
	BALL VALVE

COMPRESSED AIR -SYSTEM SCHEMATIC

PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	 SG STRUCTURAL ENGINEERS ENGINEERS/ARCHITECTS <small>53, M.A. Palaniswamy Street, K.K. Purur, Coimbatore-38 Ph: 0422-2450245, 2453323. Email:profsgv1968@gmail.com www.sgstructural.com</small>

- NOTE:
- 1. All levels mentioned are of BOP
 - 2. Reference Dimensions are to the centre of Pipe Line
 - 3. Flange joints to be provided for AIR PIPE at every 30 m/ As per site condition
 - 4. TEEs, Reducer & Elbow to provided where it required
 - 5. Valves 50 mm and above flanged end joints & Valves below 50 mm threaded end joints



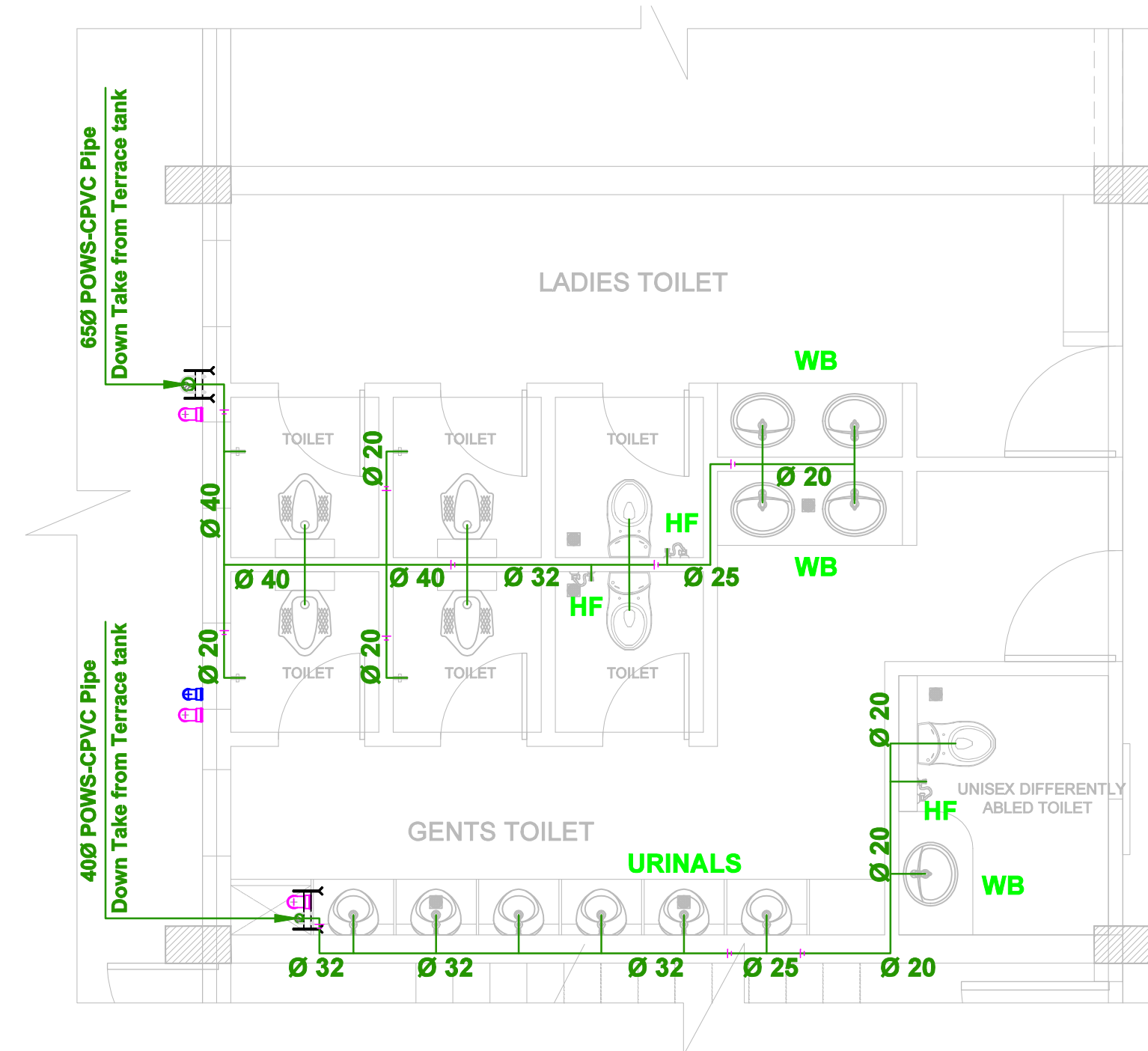
GROUND FLOOR PLAN
Internal Sanitary Arrangement Detail

Legend :-

Identification	Descriptions	Change in diameter of CPVC Pipe
WB	Wash Basin	Ball Valve
IWC	Indian water Closet	MR Mirror
EWC	European water Closet	POWS Potable WS - CPVC Pipe
SK	Sink	
BC	Bib Cock	
UT	Urinal Trap	
FT	Floor Trap	

Legend :-

S.No.	Identification	Descriptions
1.	WB	Wash Basin
2.	IWC	Indian water Closet
3.	EWC	European water Closet
4.		Laboratory Sink
5.	UT	Urinal Trap
6.	FT	Floor Trap with Cockroach arrest
7.	(SWR)110mmØ - CI Pipe	
8.	(SWR) 75mmØ - CI Pipe	
9.	(SWR) 40mmØ - CI Pipe	



GROUND FLOOR PLAN
Internal Water Supply Arrangement Detail

Notes :

- All Valves and fittings shall be of Approved make.
- All final water outlet pipe shall be reduced to 15mmØ for final connection to Taps/Fittings.
- CPVC Water pipe concealed in wall (internal) are shown in the centre of brick wall for the purpose of clarity.
However during execution, the walls are to be chased to a minimum depth and pipes are to be concealed.
- Standard heights of Taps : (from FFL)
 - IWC - 450mm
 - Bath rooms - 800mm
 - Wash basin - 800mm
- The flushing cistern shall be installed at 835mm from FFL
- Towel Rods , Soap Dish, Soap tray to be located as per site conditions.

Notes :

- Top level of GT & IC's shall be kept 25mm above FGL around the building.
- Specials at junctions of lateral pipes and vertical stack of PVC (SWR) soil waste must have access door for inspection.
- All 80&110mmØ PVC(SWR) down take pipes shall be taken upto roof level & provided with cowl inside the duct.
- No grating shall be punctured to connect waste pipe to FT (floor trap).The mouth of waste pipe discharge end shall be below grating.
- All fittings shall be of Approved make.
- All Wash Basins shall be provided with Bottle Trap and Waste Coupling.
- Pipe sleeves with socket shall be provided at the appropriate levels where ever the sewer line crosses the concrete beam/wall.
- Maintain minimum 1 in 80 slope in the Pipe lines form Fixtures to 1'st Manhole.
- For all joineries details refer relevant Architectural drawings.
- All vertical stacks to be provided with vent cowl on all odd floors and at top level.

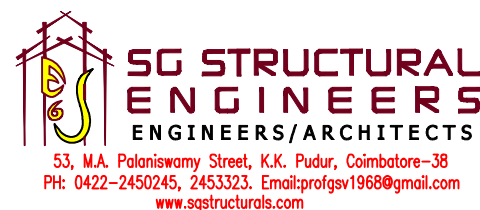
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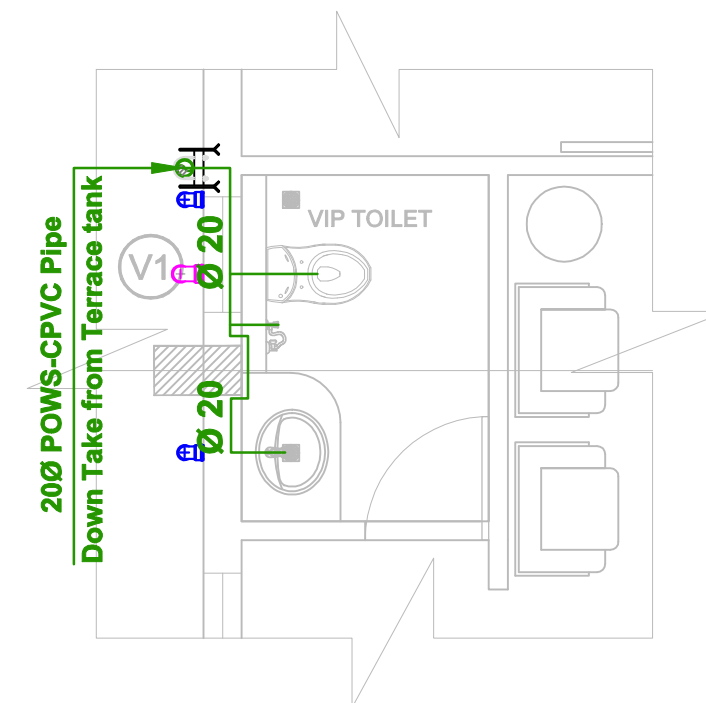
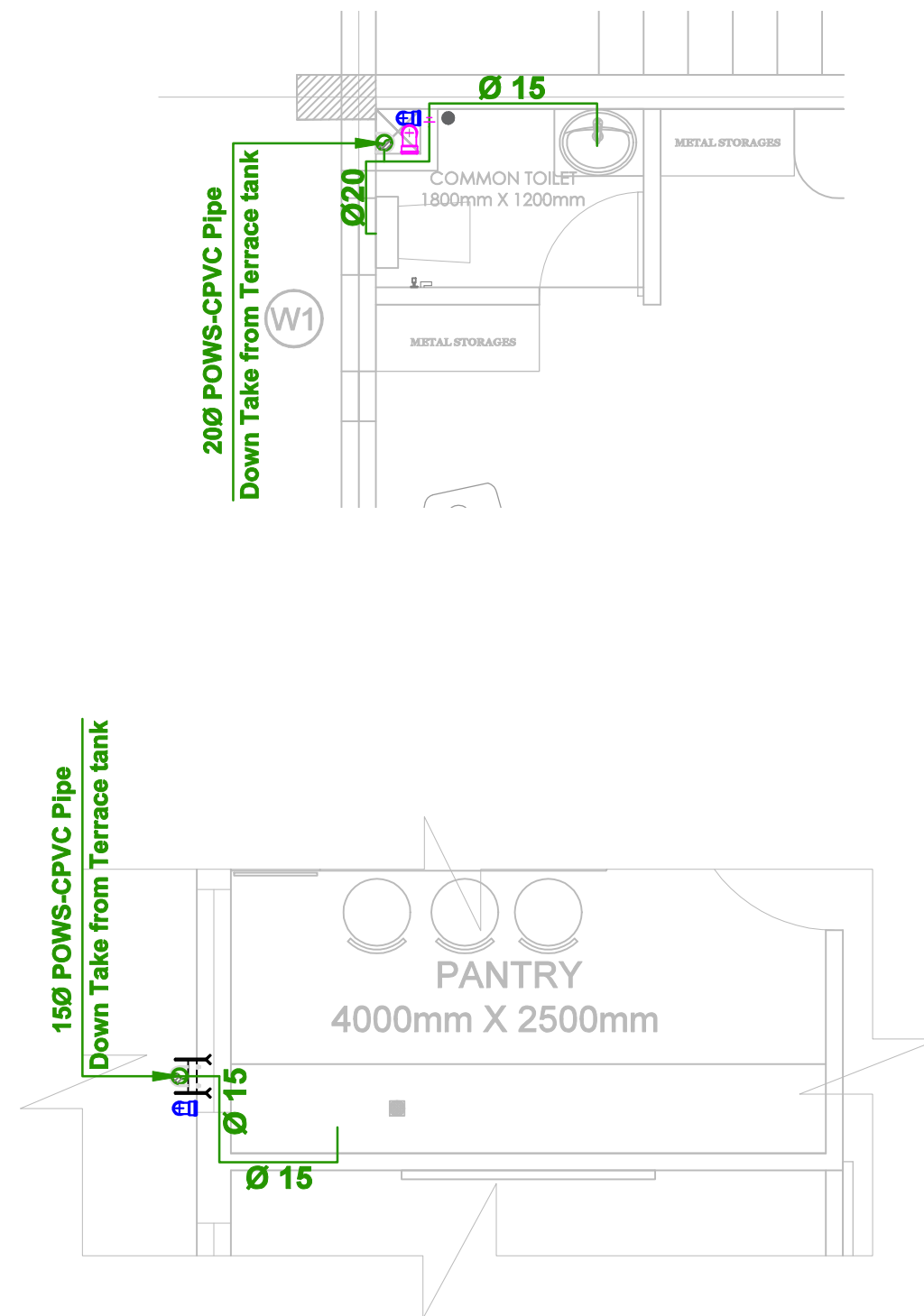
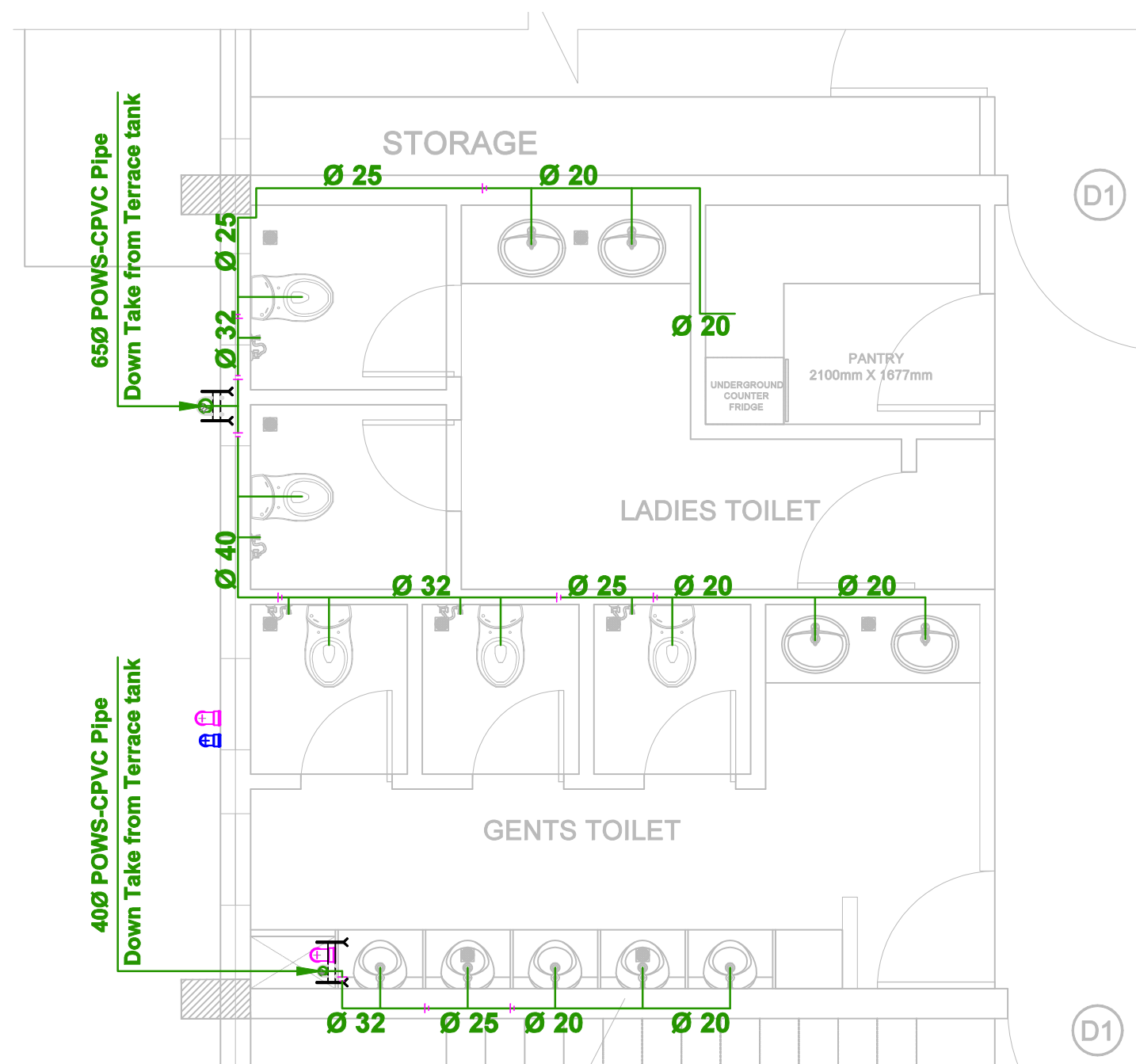
HANGAR-5

CLIENT-

BEML

CONSULTANCY-





FIRST FLOOR PLAN
Internal Water Supply Arrangement Detail

Legend :-

Identification	Descriptions	Change in diameter of CPVC Pipe
WB	Wash Basin	Ball Valve
IWC	Indian water Closet	MR Mirror
EWC	European water Closet	Potable WS - CPVC Pipe
SK	Sink	
BC	Bib Cock	
UT	Urinal Trap	
FT	Floor Trap	

Notes :

- All Valves and fittings shall be of Approved make.
- All final water outlet pipe shall be reduced to 15mmØ for final connection to Taps/Fittings.
- CPVC Water pipe concealed in wall (internal) are shown in the centre of brick wall for the purpose of clarity. However during execution, the walls are to be chased to a minimum depth and pipes are to be concealed.
- Standard heights of Taps : (from FFL)
 - IWC - 450mm
 - Bath rooms - 800mm
 - Wash basin - 800mm
- The flushing cistern shall be installed at 835mm from FFL
- Towel Rods , Soap Dish, Soap tray to be located as per site conditions.

PROJECT TITLE-

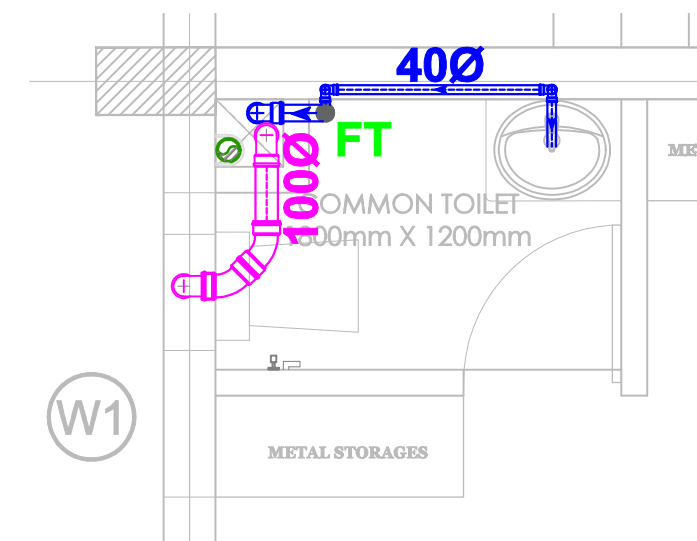
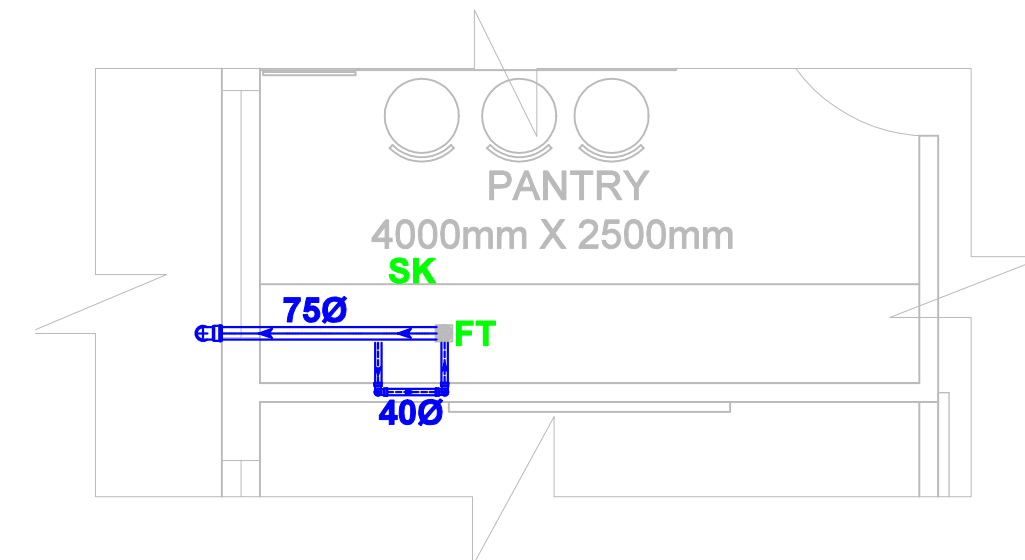
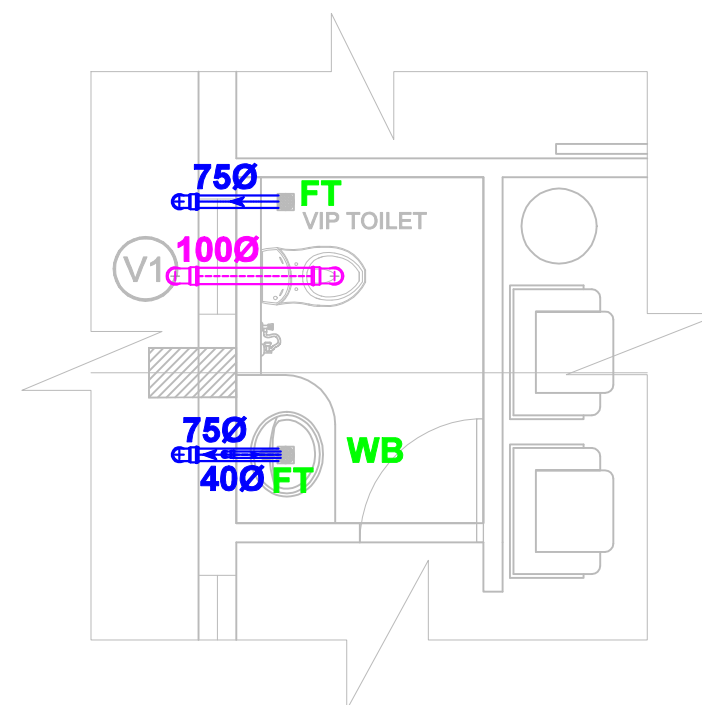
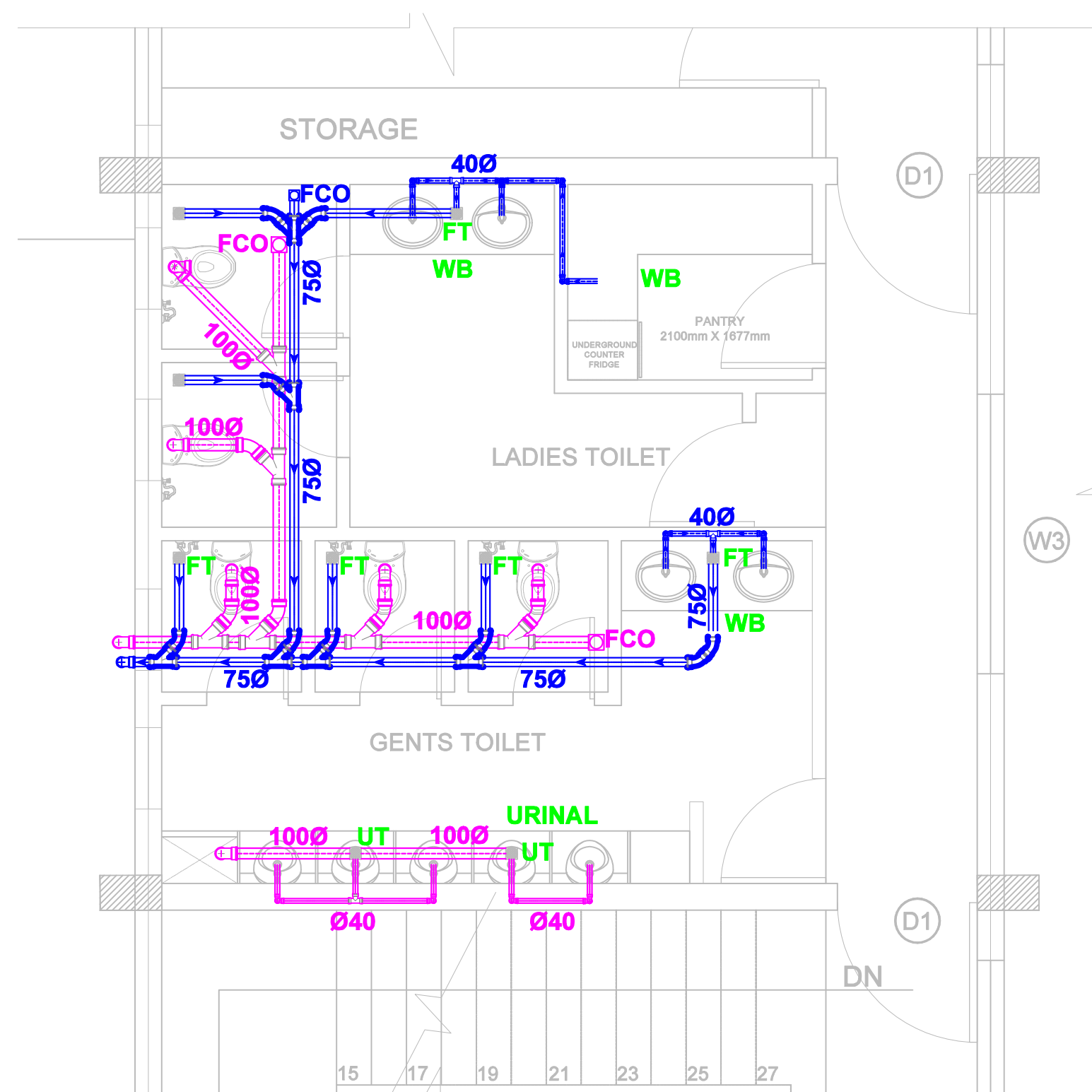
CLIENT-

CONSULTANCY-

HANGAR-5

BEML





FIRST FLOOR PLAN
Internal Sanitary Arrangement Detail

Legend :-

S.No.	Identification	Descriptions
1.	WB	Wash Basin
2.	IWC	Indian water Closet
3.	EWC	European water Closet
4.		Laboratory Sink
5.	UT	Urinal Trap
6.	FT	Floor Trap with Cockroach arrest
7.	(SWR)110mmØ - CI Pipe	
8.	(SWR) 75mmØ - CI Pipe	
9.	(SWR) 40mmØ - CI Pipe	

Notes :

1. Top level of GT & IC's shall be kept 25mm above FGL around the building.
2. Specials at junctions of lateral pipes and vertical stack of PVC (SWR) soil waste must have access door for inspection.
3. All 80&110mmØ PVC(SWR) down take pipes shall be taken upto roof level & provided with cowl inside the duct.
4. No grating shall be punctured to connect waste pipe to FT (floor trap).The mouth of waste pipe discharge end shall be below grating.
5. All fittings shall be of Approved make.
6. All Wash Basins shall be provided with Bottle Trap and Waste Coupling.
7. Pipe sleeves with socket shall be provided at the appropriate levels where ever the sewer line crosses the concrete beam/wall.
8. Maintain minimum 1 in 80 slope in the Pipe lines form Fixtures to 1st Manhole.
9. For all joineries details refer relevant Architectural drawings.
10. All vertical stacks to be provided with vent cowl on all odd floors and at top level.

PROJECT TITLE-

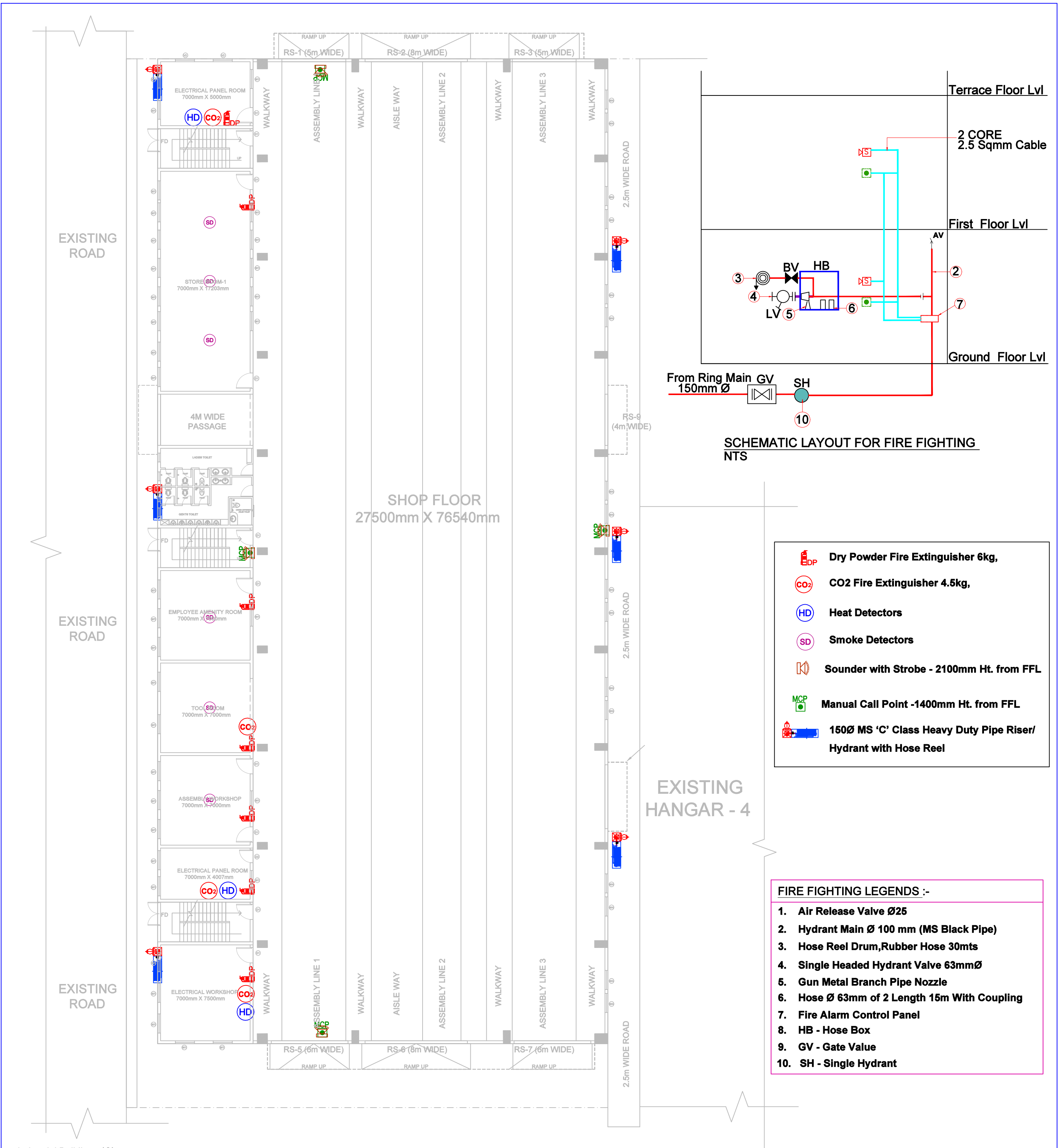
CLIENT-

CONSULTANCY-

HANGAR-5

BEML






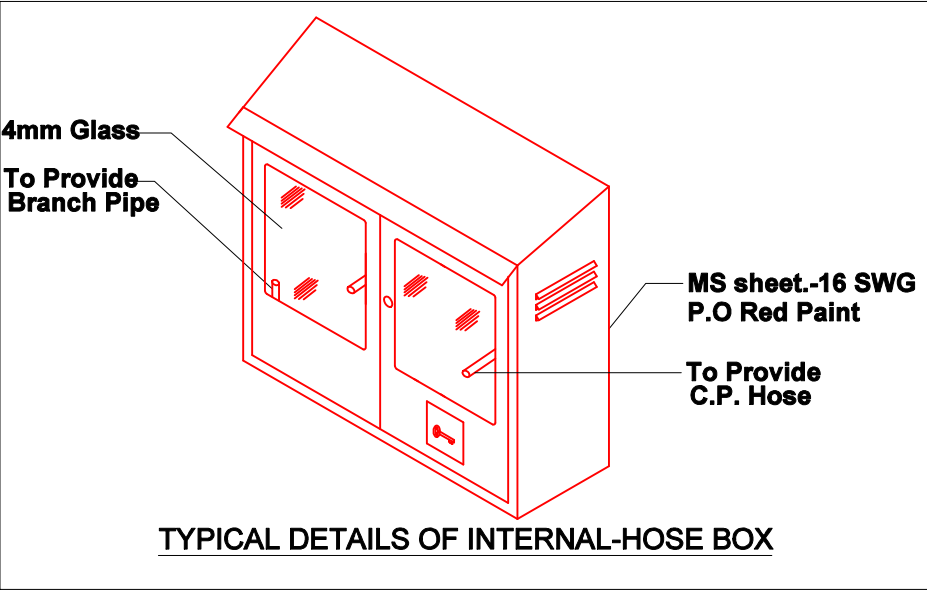
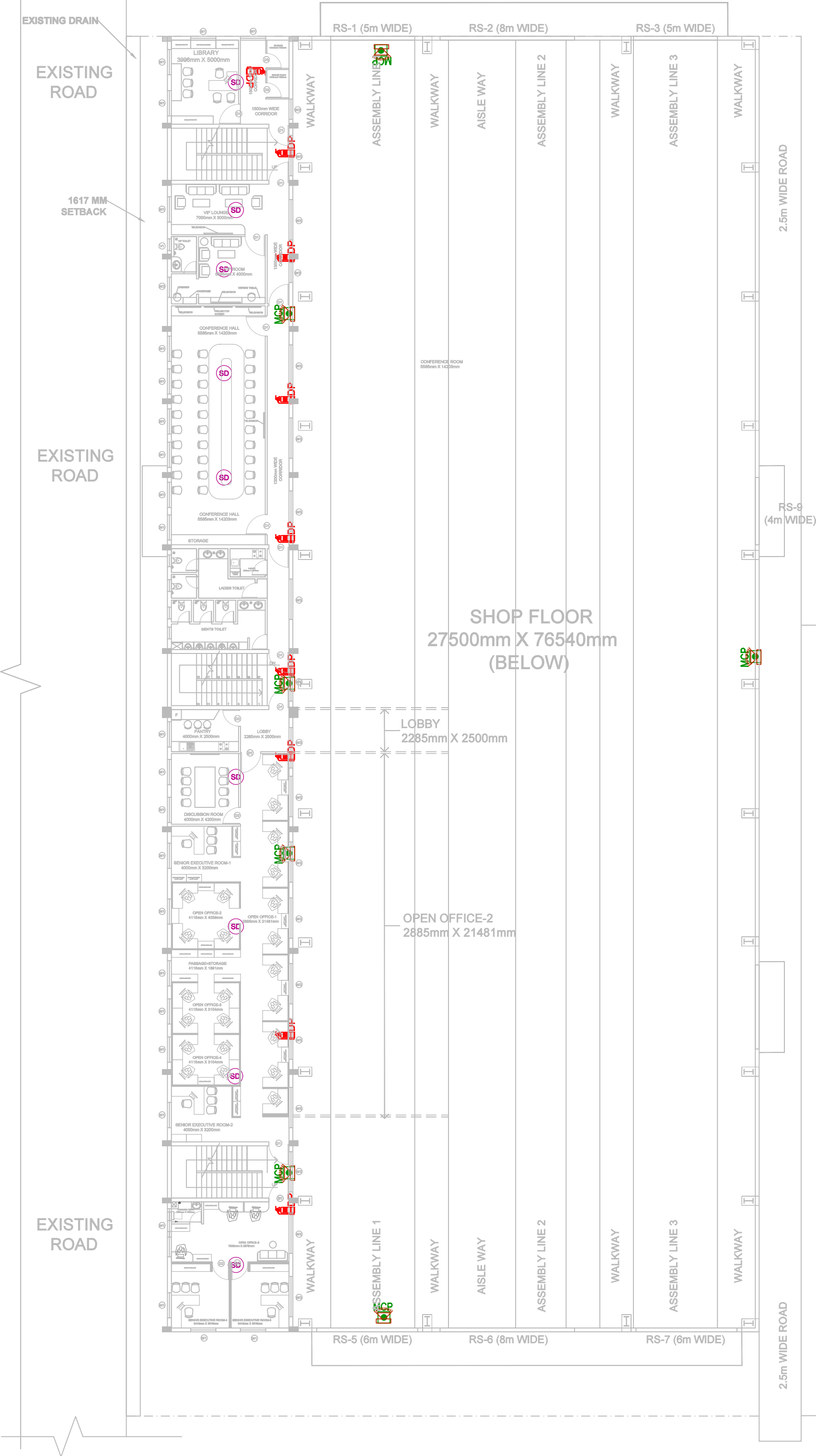
Industrial Buildings (G)
Low Hazard (G1)








S.No.	Type of Building	Type Of Installation								Water Supply (Litres)		Pump Capacity (Litres/min)	
		Fire Extinguisher	First Aid Hose Reel	Wet Riser	Down Comer	Yard Hydrant	Automatic Sprinkler System	Manually Operated Electric Fire Alarm Systems	Automatic Detection And Alarm System	Under Ground Static Tank	Terrace Tank	Pump Near Under Ground Static Tank	Terrace Tank Level
1.	Covered area more than 500 m2 (for building height up to 15 m)	R	R	NR	R	NR	R (see Note 4)	R	Provided	NR	20000 (5000) (see Note 6)	NR	450 (450) (see Note 6)

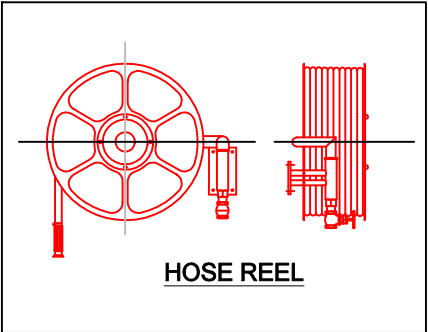
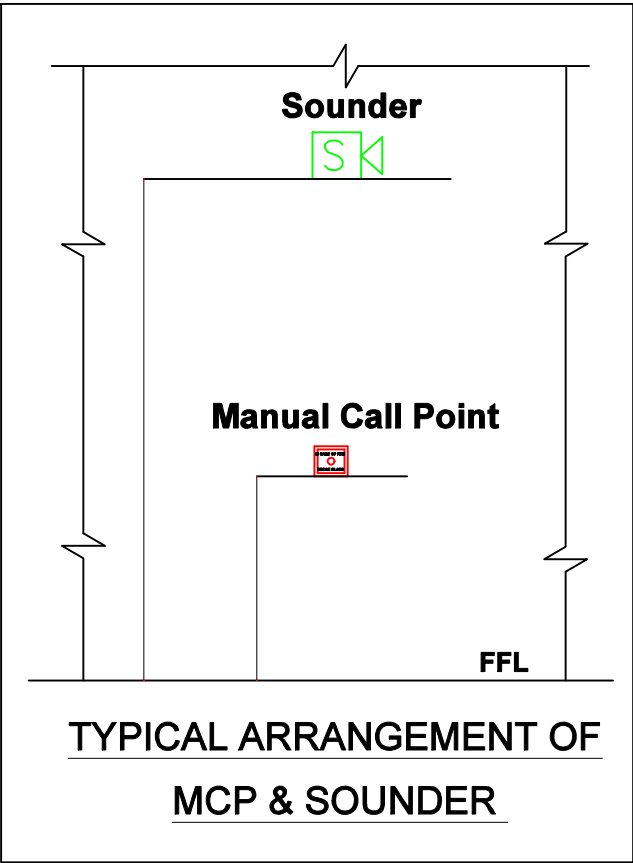
Note:- R- Required NR- Not Required
Note 4 - Required to be installed in basement, if area of basement exceeds 200 m2.
Note 6 - Additional value given in parenthesis shall be added if basement area exceeds 200 m2 •
Note 10 - Provide required number of sets of pumps each consisting of one electric and one diesel pump (stand by) of capacity 2280 litre/min and one electric pump of capacity 180litre/min.

GROUND FLOOR FIRE FIGHTING LAYOUT


PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	 SG STRUCTURAL ENGINEERS ENGINEERS/ARCHITECTS 53, M.A. Palaniswamy Street, K.K. Pudur, Coimbatore-38 Ph: 0422-2450245, 2453323, Email:profsgv1968@gmail.com www.sgstructurals.com

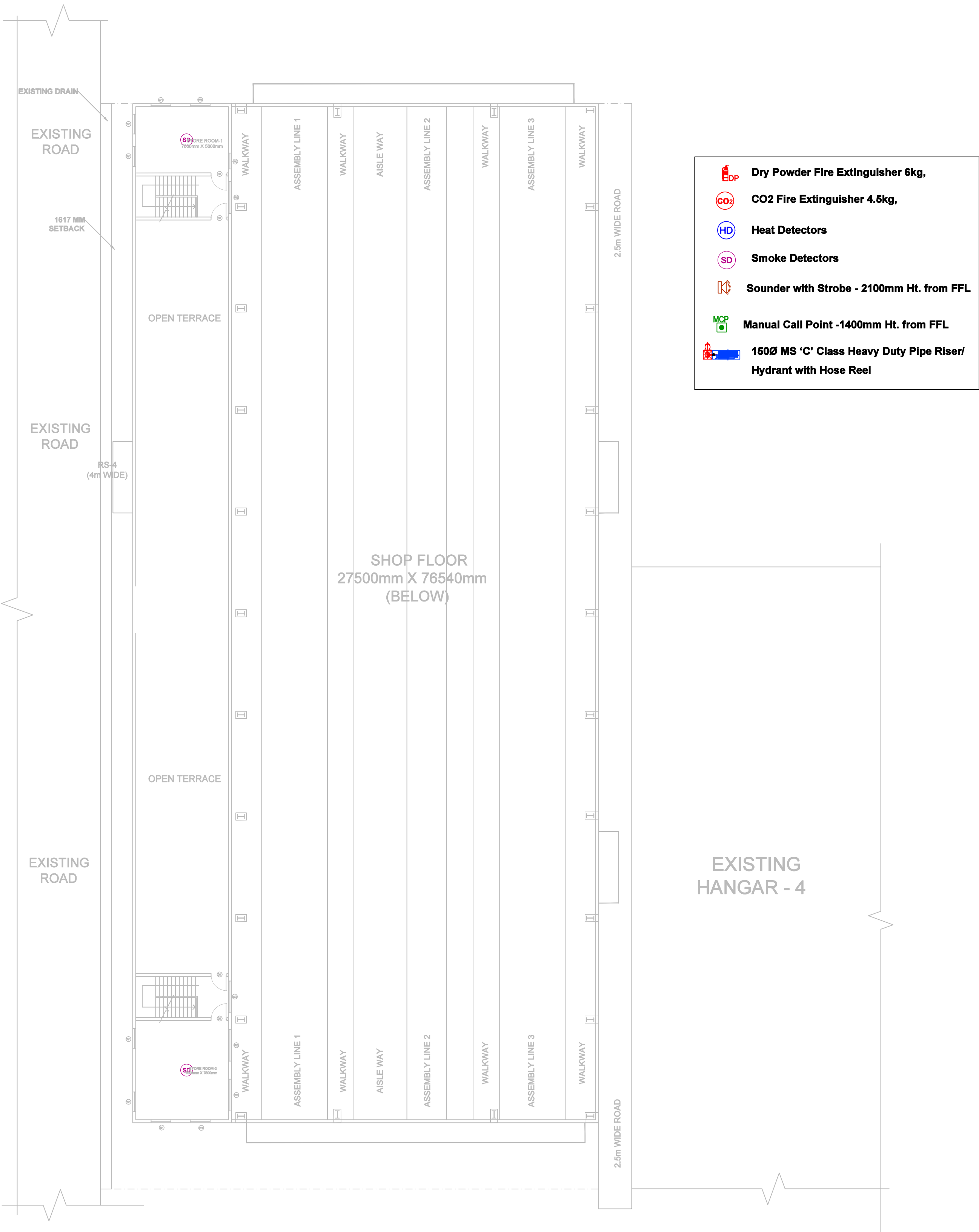


-  **Dry Powder Fire Extinguisher 6kg,**
-  **CO2 Fire Extinguisher 4.5kg,**
-  **Heat Detectors**
-  **Smoke Detectors**
-  **Sounder with Strobe - 2100mm Ht. from FFL**
-  **Manual Call Point -1400mm Ht. from FFL**
-  **150mm MS 'C' Class Heavy Duty Pipe Riser/Hydrant with Hose Reel**




FIRST FLOOR FIRE FIGHTING LAYOUT

PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	 SG STRUCTURAL ENGINEERS ENGINEERS/ARCHITECTS 53, M.A. Palaniswamy Street, K.K. Pudur, Coimbatore-38 Ph: 0422-2450245, 2453323. Email:profsgv1968@gmail.com www.sgstructurals.com



SECOND FLOOR FIRE FIGHTING LAYOUT

PROJECT TITLE-	CLIENT-	CONSULTANCY-
HANGAR-5	BEML	<div><div>SG STRUCTURAL ENGINEERS ENGINEERS/ARCHITECTS 53, M.A. Palaniswamy Street, K.K. Pudur, Coimbatore-38 Ph: 0422-2450245, 2453323. Email:profsgv1968@gmail.com www.sgstructurals.com</div></div>