LOD

LODHA Acme Housing Manpada

Acme Ozone Sales Gallary

Contract Ref: 4630027499
Material Approval Submittal
MAS No: 04

Contractor: G Engineers

To LODHA Group:

Date: 02.03.2022

Discipline ☐ Architectural ☐ Structural ☐ HVAC ☐ Electrical ☐ Plumbing ☐ Facade Others (.....)

MATERIAL DETAILS (One Item Only Per Form)
Item description :- UPVC SWR DRAINAGE PIPES & FITTINGS

Name of material :- UPVC SWR DRAINAGE PIPES & FITTINGS

Remarks ☐ As per specifications ☐ Alternate submission

- Attach all relevant technical literature marked to identify relevant descriptions, current test certificate, samples etc.
- Highlight any element of contractual non-compliance in this submittal

Drawing Ref: -
Specification Ref: - **65 mm , 75 mm & 110 mm dia**
BOQ Ref: - **1.01.3**
Indian/International Standards Ref: - **IS : 13592**

Planned Date for applicable submittal for: -
1. O & M Manual
2. Training Manual
3. Specified /recommended spare parts
4. Warranties and Guarantees

Date:

Manufacturer / Supplier
Company Name: - **SUPREME**
Address: **612 Raheja Chamber, Nariman Point, Mumbai - 400021**

Local Agent:

Locally Manufactured :
Production Period :
Delivery Ex-works :
Total Delivery Time :
Total Delivery Time :

For G ENGINEERS
Proprietor

Programme: -
Date required on Site: -
Expected date of arrival on Site: -

Contractor's Authorized Signature

LODHA Engineer's Comments ☐ sign ☐ . Mgmt (Civil). Cor ☐ gmt (MEP) Con. M ☐ nt (Facade) QA/QC ☐

Name/ Signature/ Date	Name/ Signature/ Date	Name/ Signature/ Date	Name/ Signature/ Date	Name/ Signature/ Date
QE	CM	Commercial/Contracts	Store	Co-Ordination

Consultant's Comments.

Name/ Signature/ Date	Name/ Signature/ Date
Architect	RCC Consultant

Status	Code 1	Code 2	Code 3	Code 4
	Work may proceed	Conditionally approved. Work may proceed and resubmit incorporating comments indicated	Revise & Resubmit. Work may not proceed	For information and records only. Work may proceed.

Vice President **Date: -**

CC: VP (QA/QC), VP (Purchase)

Code 1 – Work may proceed
Code 2 – Conditionally approved. Work may proceed and resubmit incorporating comments
Code 3 – Revise & Resubmit. Work may not proceed
Code 4 – For information and records only. Work may proceed

RECEIVED ON
NAME :
DATE :
SIGN. :

THE SYSTEM

Supreme is the pioneer in introducing this efficient S.W.R. drainage system in India. It has successfully replaced conventional CI and AC drainage systems. The Supreme S.W.R. drainage system is designed for quick and efficient removal of waste without leakage. It is highly resilient, tough and durable with high tensile and impact strength. Moreover it is free from scale formation, rusting, weathering and chemical action. It is virtually immune to attack from bacteria, fungi, micro-organisms and insects. Thus, the system is a long term solution for building drainage with estimated life over 50 years. In addition to the various benefits, it is more cost effective than any conventional drainage system and is approved by MCGM.

Product specifications and range

Pipes are available in 50 to 160mm sizes and fittings are available in 40 to 160mm sizes. Pipes conform to IS:13592-92 and fittings conform to IS:14735-99.

FEATURES AND BENEFITS

High quality and wide range – The system consists of pipes and a wide range of fittings with various traps and accessories which makes the system complete in all respect and hence customer need not depend on conventional systems. A range of fittings are available in pasted and fix 'O' ring type joints.

Quick and efficient removal of waste without leakage - Mirror smooth and restriction free inner surface of pipes and fittings ensure superior flow characteristics making the system free from problems of clogging and drain choke-up. System is completely leak-proof and designed to maintain high standards of hygiene.

Strong and long lasting - This system is highly resilient, tough and durable with high tensile strength and high impact strength. Moreover it is free from problems caused by scale formation, rusting, weathering and chemical action and hence it lasts for a lifetime.

Excellent chemical and corrosion resistance - Being non-metallic, this system is completely free from corrosion and offers very good resistance to wide range of chemicals.

UV resistance - It eliminates the adverse effects of sunlight and weather and can safely used for outdoor installations.

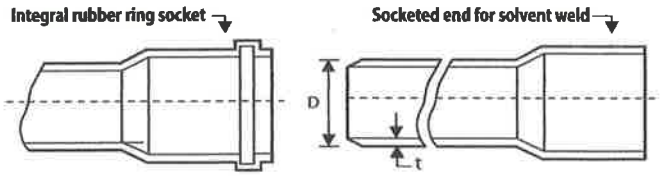
Quick and convenient installation - Being extremely light in weight and provided with special rubber jointing technique, installation of this system becomes very easy.

Adequate and easy access for cleaning and clearing obstructions.

Low maintenance - Once installed Supreme S.W.R. drainage system needs minimal maintenance.

Cost effective - Supreme S.W.R. drainage system is more cost effective than any conventional drainage system.





PIPES

Pipes conform to IS:13592-1992

Nominal outside diameter (D) in mm	Tolerance on outside diameter (mm)	Wall thickness (t) in mm			
		Type-A		Type-B	
		Min	Max	Min	Max
50	+0.3	1.8	2.2	3.2	3.8
63	+0.3	1.8	2.2	3.2	3.8
75	+0.3	1.8	2.2	3.2	3.8
90	+0.3	1.9	2.3	3.2	3.8
110	+0.4	2.2	2.7	3.2	3.8
160	+0.5	3.2	3.8	4.0	4.6

Drainage Pipe material shall be as follows:

Building height (< 30 m)

Service	Down take	Toilet Internal	Stilt/building external
Soil	uPVC, SWR Type-B, IS 13592 Fittings IS 14735 Refer Note :2	Buried: uPVC, up to 65mm - SWR, IS 4985, class-3 with fittings IS 7834 Buried: Above 65 mm -IS 13592, Type-B with Fittings IS 14735 Exposed: Low noise ,Refer Note:1	Buried: Solid wall/Foam core brown pipes as per IS 15328, SDR 34 , SN 8 Exposed: CI LA class , IS 1536
Waste	uPVC, SWR Type-B, IS 13592 Fittings IS 14735 Refer Note :2	uPVC, up to 65mm - SWR, IS 4985, class-3 with fittings IS 7834 Above 65 mm - IS 13592, Type-B with Fittings IS 14735	Buried: Solid wall/Foam core brown pies as per IS 15328, SDR 34 , SN 8 Exposed: CI LA class , IS 1536
Vent	uPVC,Type-A, IS 13592 Fittings IS 14735	uPVC, SWR, Type-A, IS 13592 Fittings: IS 14735	uPVC, SWR, Type-A, IS 13592 encased Fittings: IS 14735
Rainwater	uPVC, Type-B, IS 13592 Fittings IS 14735 Refer Note :2	uPVC, up to 65mm - SWR, IS 4985, class-3 with fittings IS 7834 Above 65 mm - IS 13592, Type-B with Fittings IS 14735	Buried: HDPE Double wall corrugated SN 8 brown as per ISO 21138-3 Exposed: CI LA class , IS 1536
Note:1	Under slung soil pipes to be Low noise PP Pipes (Silent poly-propylene), for noise rating refer specifications.		
Note:2	Velocity breakers to be provided as applicable		

Drainage Building height (above 30 m to below 70 m)

Service	Down take	Toilet Internal	Stilt/building external
Soil	uPVC, IS 4985, class-3 Fittings as per IS 7834 Refer Note :2	Buried: uPVC, up to 65mm - SWR, IS 4985, class-3 with fittings IS 7834 Buried: Above 65 mm -IS 13592, Type-B with Fittings IS 14735 Exposed: Low noise ,Refer Note:1	Buried: Solid wall/Foam core brown pipes as per IS 15328, SDR 34 , SN 8 Exposed: CI LA class , IS 1536
Waste	uPVC, IS 4985, class-3 Fittings as per IS 7834 Refer Note :2	uPVC, up to 65mm - SWR, IS 4985, class-3 with fittings IS 7834 Above 65 mm - IS 13592, Type-B with fittings IS 14735	Buried: Solid wall/Foam core brown pies as per IS 15328, SDR 34 , SN 8 Exposed: CI LA class , IS 1536
Vent	uPVC, SWR, Type-A, IS 13592 Fittings: IS 14735	uPVC, SWR, Type-A, IS 13592 Fittings: IS 14735	uPVC, SWR, Type-A, IS 13592 encased Fittings: IS 14735
Rainwater	uPVC, IS 4985, class-3 Fittings as per IS 7834 Refer Note :2	uPVC, up to 65mm - SWR, IS 4985, class-3 with fittings IS 7834 Above 65 mm - IS 13592, Type-B with fittings IS 14735	Buried: HDPE Double wall corrugated SN 8 brown as per ISO 21138-3 Exposed: CI LA class , IS 1536
Note:1	Under slung soil pipes to be Low noise PP Pipes (Silent poly-propylene), for noise rating refer specifications.		
Note:2	Velocity breakers to be provided as applicable		

BILL OF QUANTITIES

SR. No.	ITEM DESCRIPTION	HSN/SAC Code	UNIT	QTY	RATE	AMOUNT
1	**vendor for acme infra plumbing work** vendor required for acme ozone infra plumbing works					
1.01	**DRAINAGE INSTALLATIONS** Include for the supply, complete installation, Testing & Commissioning as detailed in the specifications and on the Drawings and to the complete satisfaction and approval of the Engineer and all concerned Statutory Authorities and under the following sections. To be read in conjuction with the drawings no : P - 002 for the details.					
1.01.1	Pipe work of waste, soil, condensate, vent, rainwater etc including fittings, bends, elbows, rodding eyes, protection barriers, supports, accessories, expansion/contraction joints etc., complete Waste Pipes Inside the Toilet of Indian make (Indian PVC (SWR) Type as per Relevant IS standards IS13592 40 mm dia pipe	995462	NOS	16,000	220,00	3.520,00
1.01.2	50 mm dia pipe	995462	NOS	25,000	260,00	6.500,00
1.01.3	75 mm dia pipe	995462	NOS	19,000	610,00	11.590,00
1.01.4	Soil Pipe Inside the Toilet Indian make (Low noise Indian PVC (SWR) Type as per Relevant IS standards IS13592, IS14735(2-4 LPS@20-26 dB respectively)). 110 mm dia Soil pipe	995462	NOS	11,000	1.270,00	13.970,00
1.01.5	Condensate Drain pipe of UPVC Class 5 in accordance to IS 4985 with 6 mm thick nitrile rubber insulation. Refer technical specification for installation of piping. (Note: 9mm Thk for Exposed piping) 25mm Dia	995462	NOS	196,000	180,00	35.280,00

S.No	Details of Materials / Equipment	Manufacturer's Name
10	SFRC Covers	-L.K.Conkk -K.K. Plastics -Jain -Pragati
11	RCC pipes	-Jain Spun Pipes -Indian Hume Pipes -Pranali -Pragati
12	DWC HDPE (double wall Corrugated)Pipes	-Rex -Duraline -GEMINI
13	GI / M.S Pipes (IS : 1239 and IS : 3589)	-AST pipes -Jindal -Tata Steel -Zenith
14	GI pipes fittings	-Jainsons (JSI) -Unik -Zoloto-m -VS
15	GI pipe sealent	-Henkel - LOCTITE 55
16	Pipe clamp & supports	-Diamond (Hira technologies Pvt.ltd.) -Hitech Supports & Hangers Pvt. Ltd
17	D. I. Pipes & fittings	-Electro Steel -Jindal -Kejriwal castings
18	DI Valves and Fittings	-Kartar Valves and Fittings -Sir Valves -Kejriwal castings -AVK India
19	uPVC Pipes & fittings including multi floor trap, P trap etc.	-Astral -Ashirwad -Ajay -Supreme
20	CPVC pipe	-Astral -Ashirwad -Ajay -Supreme
21	UPVC Pressure pipes	-Astral -Ashirwad -Ajay -Supreme
22	Pex Pipe	-Giacomini -Cosmoplast
23	HDPE – Indian	-Jain PE -Darshan pipes -Sangir -Time technoplast
24	PVC - SWR Low noise silent pipes	-Ashirwad -Supreme