

TENDER DOCUMENT
FOR THE CONSTRUCTION OF PHASE – 1
OF THE SECURED ENGINEERED HAZARDOUS SOLID WASTE
LANDFILL SITE FOR
DISPOSAL OF HAZARDOUS SOLID WASTES

OF MEMBERS OF METABOLT ENERGY PRIVATE LIMITED
LOCATED AT: SURVEY NO. 46, AT VILLAGE – SILUDI, TALUKA – VALIA, DISTRICT –
BHARUCH, GUJARAT, INDIA.

WORK NO.: MEPL/SWM/01/2024

VOLUME – 2: FINANCIAL BID DOCUMENT FOR CIVIL LINER AND
INFRASTRUCTURE WORKS

OWNED AND MANAGED BY:

METABOLT ENERGY PRIVATE LIMITED,
B-204 TITANIUM SQUARE THALTEJ CROSS
ROAD, THALTEJ AHMEDABAD – 380 054, GUJARAT,
INDIA

TECHNICAL CONSULTANTS OF THE PROJECT:

MICROSCALE ENGINEERING CONSULTANCY,
9-10, SECOND FLOOR, ABOVE SBI BANK, A-SQURE, NR.
KAVERI SANGAM, SHILAJ CIRCLE, AHMEDABAD-380059,
GUJARAT, INDIA.

Jun-24

**METABOLT ENERGY PVT. LTD., S. NO. 46, VILLAGE -
SILUDI, TALUKA - VALIA, DISTRICT - BHARUCH
CONSTRUCTION OF SECURED LANDFILL FOR HAZARDOUS SOLID
WASTE DISPOSAL
SUMMARY OF WORKS**

SL NO	PARTICULARS	BIDDER ESTIMATE AMOUNT IN RS.
1	Landfill Phase Construction Civil Works, Rs.	
2	Landfill Phase Construction Liner Works, Rs.	
3	Infrastructure & Electrical	
4	Plant & Machinery	
	TOTAL AMOUNT WITHOUT GST, Rs.	

1.LANDFILL CIVIL WORK

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR CIVIL WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Mass Excavation Work with Side Slope in 1:2				
1a	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1a(1)	Dence/Hard murrum or Soil Not requiring Blasting	Cu.M.	55851.00		
1b	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.				
1b(1)	Dence/Hard murrum or Soil Not requiring Blasting	Cu.M.	55851.00		
1c	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 3.0 m to 5.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.				
1c(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	74468.00		
1d	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 5.0 m to 6.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1d(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1e	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 6.0 m to 7.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1e(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1f	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 7.0 m to 8.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1f(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1g	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 8.0 m to 9.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1g(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1h	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 9.0 m to 10.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1h(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1i	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 10.0 m to 11.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1i(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1j	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 11.0 m to 12.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1j(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1k	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 12 m to 13.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				
1k(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1l	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 13 m to 14.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.				

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METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR CIVIL WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1l(1)	Soft Rock Or Soft Soil Not requiring Blasting	Cu.M.	37234.00		
1m	Filling of Voids of Excavated Rock with small size stones and soil to prepare a smooth surface for application of liners on the side slope				
	The item includes earth filling, back filling of voids of the excavated rock in the side slope with small size stones and soil brought from outside and site grading and dressing to prepare a smooth surface for application of liners on the side slope.				
1m(1)	150 mm thick	Cu.M.	3959.70		
	Transportation				
1n	Extra over item No. 1 above for lead From 50 m. to 5 km Rate includes transportation from the site to approved location,loading, unloading, staking and spreading as directed etc. ,	Cu.M.	525235.70		
	Sub Total of Item 2				
2	Amended Clay Liner at the Bottom of the Phase - for Double Liner system -				
2a	The item includes P/L of amended clay liner using the available soil obtained from the nearby borrow pits and mixing with good quality sodium bentonite in the appropriate proportion as determined in the laboratory with soil to achieve the desired permeability as specified in criteria of CPCB, on the bottom surface of the phase in two layers each of 150 mm as shown in the bottom liner section. The contractor shall mix the excavated soil and bentonite in specified thickness and with rolling, watering and compaction thoroughly. See Item No.2 of Item wise specifications. R				
2a(1)	Bottom Primary	Cu.M.	11879.10		
2a(2)	Bottom Secondary	Cu.M.	28842.00		
2a(3)	Inner Side Slope	Cu.M.	3552.27		
	Sub Total of Item 2				
3	Concrete Work on the inner side slope of the phase				
3a	Providing and laying Plain Cement Concrete M-20 200 mm thickness for very severe conditions with minimum cement content of 260 Kg/Cu.m. and minimum free water - cement ratio of 0.45 as per IS456 at the inner side slope of the phase for providing a solid support and covering of HDPE and Geotextile liner on the side slope from bottom of the phase to the earthen bund top with curing complete, excluding form work as shown in the drawing in:				
3a(1)	On Inner Side Slope (1:2) from GL to bottom.	Cu.M.	4736.35		
3b	Providing and Laying of Form work with sheeting of steel sheets so as to give a fair finish for concrete structure as shown in the drawing and including centering, shuttering and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 m and removal of the same for in situ reinforced concrete and plain concrete work in:	Sq.M.	29141.77		
	Sub Total of Item 3				
4	Drainage Layer at the Bottom of phase				
	The item includes providing and laying of 300 mm drainage layer comprising of 100mm thick 10-20MM Coarse Aggregate + 100MM thick 6-10mm (Grit) Coarse Aggregate + 100 mm thk. Coarse sand as shown in drawing. The item includes providing, laying, leveling, compaction etc. complete.				
4a	100 mm thk. 10 -20 mm coarse aggregate	Cu.M.	5279.60		
4b	100 mm thk. 6 -10 mm coarse aggregate	Cu.M.	5279.60		
4c	100 mm thk. Coarse sand	Cu.M.	5279.60		
	Sub Total of Item 4				
5	Storm Water Drain around landfill and infrastructure facilities (total site) -				

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METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR CIVIL WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
	The item includes construction of Storm Water Drain in RCC M20 on the G/L. The item includes excavation, rubble soling, PCC, RCC M20 and steel reinforcement. See Item No. 5 of Item wise specifications.				
5a	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	Cu.M.	1750.14		
5b	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	cu.m.	234.78		
5c	Providing and laying Plain Cement Concrete M-20 200 mm thickness for very severe conditions with minimum cement content of 260 Kg/Cu.m. and minimum free water - cement ratio of 0.45 as per IS456 at the inner side slope of the phase for providing a solid support and covering of HDPE and Geotextile liner on the side slope from bottom of the phase to the earthen bund top with curing complete, exclding form work as shown in the drawing in:	Cu.M.	204.16		
5d	Providing and laying controlled cement concrete M-20 on the PCC laid above and curing complete, exclding form work and reinforcement for reinforced concrete work as shown in the drawing in Foundations, footings, base of columns and mass concrete.	Cu.M.	204.16		
5e	Supplying, cutting, bending, binding and hooking and binding with wire for RCC work tor steel TMT Fe 500 D round bar including bending, binding and placing in position complete all costs upto floor two level.	Kg	24499.20		
5f	Providing and Laying of Form work with sheeting of steel sheets so as to give a fair finish for concrete structure as shown in the drawing and including centering, shuttering and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 m and removal of the same for in situ reinforced concrete and plain concrete work in:	Sq.M.	704.00		
Sub Total of Item 5					
6	Leachate Well in RCC M25				
	The leachate wells have to be constructed in RCC M250 grade concrete of size as shown in the drawing. The well shall be kept open from the top. See Item No. 6 of Item wise specifications.				
6a	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	Cu.M.	72.29		
6b	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	Cu.M.	72.29		
6c	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 3.0 m to 5.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	Cu.M.	96.38		
6d	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	cu.m.	9.23		
6e	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth.	Cu.M.	6.02		
6f	Providing and laying controlled cement concrete M-25 on the RCC laid above and curing complete, exclding form work and reinforcement for reinforced concrete work as shown in the drawing in Foundations, footings, base of columns and mass concrete.				
6f(1)	Item No. 5.8.3 (A) In Foundations, footings, base of columns and mass concrete.	Cu.M.	18.07		
6f(2)	Item No. 5.8.3 (B) In Walls from top of foundation level upto floor two level.	Cu.M.	86.40		

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METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR CIVIL WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
6g	Supplying, cutting, bending, binding and hooking and binding with wire for RCC work for steel TMT Fe 500 D round bar including bending, binding and placing in position complete all costs upto floor two level.	kg	12536.10		
6h	Providing and Laying of Form work with sheeting of steel sheets so as to give a fair finish for concrete structure as shown in the drawing and including centering, shuttering and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 m and removal of the same for in situ reinforced concrete and plain concrete work in:	Sq.M.	451.84		
6i	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm thick backing coat of C.M. 1:3 (1-cement : 3-sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand)etc. complete.	Sq.M.	864.00		
6j	P/L 25 -50 mm Thk. IPS on inside of the Bottom	Sq.M.	24.00		
6k	Providing and Fixing of 110 mm dia UPVC water spouts- 200 mm long. Non SOR Item. Rate Analysis provided.	nos.	20.00		
	Sub Total of Item 6				
7	Leachate Collection system - Leachate pipes - 160 mm dia lateral pipes - and 225 mm dia main header pipes - laid in RCC leachate Collection trench placed at the bottom of the phase				
	The item includes providing and laying of 160 mm outer diameter size HDPE pipes of 10 Kg/cm2 pressure grade and ISI make as per IS – 4984 with material grade PE – 80 and material density of 946.40 Kg/cm2 and having holes of 10 mm @ center to center 200 mm distance in the upper half section of the pipes, through out the length of the pipes as shown in the diagram attached. The pipes are to be laid horizontally in the primary drainage layer at the bottom of the phase as shown in the layout plan of the landfill and are connected with the RCC leachate wells. The pipes connecting the leachate well are to be laid in such a way so as to make a slope of 1.0 % available to allow leachate to flow easily in to the Leachate well. The pipes are to be laid in a RCC leachate collection trench. The Leachate wells are to be connected to a 225 mm outer diameter main header. The leachate wells shall have a leachate lifting system with sludge pumps provided at the G/L and delivery pipe brought to the G/L at the approach ramps and provided with valves for discharging leachate to the leachate tank. See Item No. 7 of Item wise specifications.				
7a	Providing and Laying of 160 mm diameter HDPE pipes of 10 Kg/CM2 grade and ISI make with perforations for leachate collection.	R.mt.	1970.00		
7b	Providing and Laying of 225 mm diameter HDPE pipes of 10 Kg/CM2 grade and ISI make without perforations for leachate collection - whole main header pipe.	R.mt.	394.00		
7c	Providing and Laying of 75 mm diameter HDPE pipe of 6 Kg/CM2 grade and ISI make for leachate withdrawal from tank with complete pipe fittings and other auxiliaries as needed.	R.mt.	100.00		
7d	Providing and Laying of RCC Leachate Collection Trench in the Amended Clay liner top to fix pipes at specified locations – for 160 mm Perforated HDPE pipes and 5 for 225 mm main Header Pipe:				
7d(1)	Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	Cu.M.	724.42		
7d(2)	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth.	Cu.M.	482.94		

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METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR CIVIL WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7e	Providing and laying of sludge pumps with complete electrical system including high efficiency motor, operating at a discharge head of 50 m minimum and delivering the leachate at the rate of 45 Cum/Hr -	nos.	2.00		
	Sub Total of Item 7				
8	Construction of Approach Ramp 7 m wide 108 m slope length in 1:8 slope in RCC with Entrance Area Development				
	The item includes construction of approach ramp in RCC for truck movement into and out of the phase. Total area of ramp with slope and entrance area shall be 2895 Sq.m. Slope length is 108 m and it shall be open from the GL level. See Item No.8 of Item wise specifications.				
8a	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth.	Cu.M.	72.00		
8b	Providing and laying controlled cement concrete M-20 on the PCC laid above and curing complete, exculding form work and reinforcement for reinforced concrete work as shown in the drawing in Foundations, footings, base of columns and mass concrete.	Cu.M.	90.00		
8c	Supplying, cutting, bending, binding and hooking and binding with wire for RCC work tor steel TMT Fe 500 D round bar including bending, binding and placing in position complete all costs upto floor two level.	Kg	10800.00		
8d	Providing and Laying of Form work with sheeting of steel sheets so as to give a fair finish for concrete structure as shown in the drawing and including centering, shuttering and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 m and removal of the same for in situ reinforced concrete and plain concrete work in:	Sq.M.	10800.00		
	Sub Total of Item 8				
9	Earthenbund				
9a	Extra over item No. 1 above for lead From 50 m. to 5 km Rate includes transportation from the site to approved location,loading, unloading, staking and spreading as directed etc. ,	Cmt	187008		
9b	Earthwork for embankment including breaking clods, dressing with all lead and lift and including watering rolling and consolidation of subgrade in layers at O.M.C. to required dry density including filling the depression which occur during the process using power roller 8T to 10T.(A) From Borrow pits within land width	Cmt	187008		
9c	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth.				
9c(1)	From GL to Earthen Bund	Cu.M.	3484.69		
9c(2)	From GL to Flat road	Cu.M.	3484.69		
9c(3)	From Earthen Burns Flat Surface	Cu.M.	3484.69		
9d	Providing and laying controlled cement concrete M-20 on the PCC laid above and curing complete, exculding form work and reinforcement for reinforced concrete work as shown in the drawing in Foundations, footings, base of columns and mass concrete.				
9d(1)	From GL to Earthen Bund	Cu.M.	3484.69		
9d(2)	From GL to Flat road	Cu.M.	1092.00		
9d(3)	From Earthen Burns Flat Surface	Cu.M.	1558.40		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR CIVIL WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
9e	The item includes P/L of amended clay liner using the available soil obtained from the nearby borrow pits and mixing with good quality sodium bentonite in the appropriate proportion as determined in the laboratory with soil to achieve the desired permeability as specified in criteria of CPCB, on the bottom surface of the phase in two layers each of 500 mm as shown in the bottom liner section. The contractor shall mix the excavated soil and bentonite in specified thickness and with rolling, watering and compaction thoroughly. See Item No.2 of Item wise specifications. R				
9e(1)	From GL to Earthen Bund	Cu.M.	2613.52		
9e(2)	From GL to Flat road	Cu.M.	819.00		
9e(3)	From Earthen Burns Flat Surface	Cu.M.	1168.80		
9f	Providing and laying Plain Cement Concrete M-30 200 mm thickness for very severe conditions with minimum cement content of 350 Kg/Cu.m. and minimum free water - cement ratio of 0.45 as per IS456 at the inner side slope of the phase for providing a solid support and covering of HDPE and Geotextile liner on the side slope from bottom of the phase to the earthen bund top with curing complete, excluding form work as shown in the drawing in:				
9f(1)	Earthen Flat Area	Cu.M.	1948.00		
9g	Providing and Laying of Form work with sheeting of steel sheets so as to give a fair finish for concrete structure as shown in the drawing and including centering, shuttering and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 m and removal of the same for in situ reinforced concrete and plain concrete work in:	Sq.m	389.6		
Sub Total of Item 9					
				Total Amount	

2.LANDFILL LINER WORK

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BILL OF QUANTITY FOR LINER WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Providing and Laying of 1.5 mm HDPE Liner				
	The item includes providing and laying of 1500 microns virgin quality HDPE liner. It shall be applied on the Compacted Clay Liner/Geosynthetic Clay Liner and anchored below as shown in the section drawing. It shall be sealed and packed from both ends with the existing layers by employing combi-wedge fusion process. The overlapping between two HDPE sheets shall be minimum 100 mm and the machine welding shall produce two sealing lines between one overlap for perfect sealing of the liner. The lining material shall be of highest quality high density polyethylene (HDPE) sheeting, manufactured in using virgin high density polyethylene resin entirely free of Plasticizers or other filler materials with all labours, tools, tackles, machineries and transportation. The material should comply all the physico chemical properties as specified i.e. Tear resistance, Puncture resistance, Tensile strength at yield and break, Carbon black content, density, etc. All the individual sheets shall be tested accordingly. The measurements shall be taken of the covered area only and no overlaps will be considered.	Sq.M.	165339.65		
2	Providing and Laying of 500 gsm PP Nonwoven Geotextile Liner on HDPE Liner as a Protective Liner.				
	The item includes providing and laying of 500 gsm PP Nonwoven Geotextile liner on the HDPE liner applied as a protective liner.	Sq.M.	108714.43		
3	Providing and Laying of 200 gsm PP Nonwoven Geotextile Liner on HDPE Liner as a Protective Liner.				
	The item includes providing and laying of 200 gsm PP Nonwoven Geotextile liner on the HDPE liner applied as a protective liner.	Sq.M.	109421.225		
4	Providing and Laying of 300 gsm PP Nonwoven Geotextile Liner on HDPE Liner as a Protective Liner.				
	The item includes providing and laying of 300 gsm PP Nonwoven Geotextile liner on the HDPE liner applied as a protective liner.	Sq.M.	29867.225		
5	Providing and Laying of 5 Kg/Sq.m. Sodium Bentonite based GeoSynthetic Clay Liner on Inner Side Slope and on Inner Side of Vertical Retaining Wall				
	The item includes providing and laying of 5 kg/Sq.m. Sodium Bentonite based GeoSynthetic Clay liner. It shall be applied on the Compacted base on the Inner Side Slope and on Inner Side of the Vertical Retaining Wall as Secondary as well as Primary Liner and anchored below as shown in the section drawing. It shall be sealed and packed from both ends with the existing layers by filling with bentonite between the two joints. All the individual sheets shall be tested accordingly. The measurements shall be taken of the covered area only and no overlaps will be considered.	Sq.M.	165339.65		

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BILL OF QUANTITY FOR LINER WORKS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
6	Providing and Laying of 200 gsm PP Nonwoven Geotextile Liner on HDPE Liner as a Protective Liner laid and wrapped over 160 mm OD HDPE leachate collection pipes in the leachate collection system.				
	The item includes providing and laying of 150 gsm unprocessed non woven Geotextile liner laid and wrapped over the 160 mm OD HDPE perforated leachate collection pipe so as to allow leachate to flow to the leachate collection pipe and finally to the leachate collection well. This shall permit high flow of leachate into the leachate collection pipe and shall carry leachate to the leachate well. The liner shall be placed over the leachate collection pipe system as shown in the drawing.				
6a	For Lateral Pipe (160mm Dia) wrapping	Sq.M.	1000		
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT. LTD.					
ABSTRACT FOR LINER WORKS -EXTRA ITEM					
SL NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	RATE	AMOUNT
1	Providing and Laying of 300 gsm PP Nonwoven Geotextile Liner on HDPE Liner as a Protective Liner.				
	The item includes providing and laying of 300 gsm PP Nonwoven Geotextile liner on the HDPE liner applied as a protective liner.	Sq.M.	78834.00		
2	Drainage Copmposite Layre				
	The item includes providing and laying of Drainage Composite Layer	Sq.M.	74251.61		
3	Providing and Laying Of Geo Synthetic Layer				
	Providing and Laying Of Geo Synthetic Layer	Sq.M.	37125.80		
	Total Amount for Liner Works In Rs.				

3. INFRASTRUCTURE

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SECURITY OFFICE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	36		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Excavation for foundation for depth from 1.5 m to 3.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.C)Dence or hard murrum	CUM	31		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 50 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	8		
	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	8		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	6		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	10		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	23		
	Sub Total Item No : 4				
5	DPC Work				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	5		
	Sub Total Item No : 5				
6	Beam				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	6		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth. No.9.1, Page No. 96	SQM	39		
	Sub Total Item No : 6				
7	Site Treatment				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SECURITY OFFICE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	21		
	Sub Total Item No : 7				
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each dispoisted layer by ramming and watering	CUM	42		
	Sub Total Item No : 8				
9	Slabs				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	5		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	24		
	Sub Total Item No : 9				
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
	Sub Total Item No : 10				
11	Openings				
11.1	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised alluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised alluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	3		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	3		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	153		
	Sub Total Item No : 11				
12	Brickwork				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SECURITY OFFICE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	21		
Sub Total Item No : 12					
13	Finishes				
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	209		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	209		
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	23		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete. Ra	SQM	21		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	19		
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	21		
Sub Total Item No : 13					
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT LTD					
BOQ FOR WEIGH BRIDGE ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	36		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead. Ref.: Govt. of Gujarat,	CUM	31		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 50 km lead, filling, leveling, grading, dressing, watering and compaction of the earth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	8		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	8		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	6		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	10		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	23		
	Sub Total Item No : 4				
5	DPC Work				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	5		
	Sub Total Item No : 5				
6	Beam				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	6		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	39		
	Sub Total Item No : 6				
7	Site Treatment				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT LTD					
BOQ FOR WEIGH BRIDGE ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Consenstration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	21		
	Sub Total Item No : 7				
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	42		
	Sub Total Item No : 8				
9	Slabs				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	5		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	24		
	Sub Total Item No : 9				
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
	Sub Total Item No : 10				
11	Openings				
11.1	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised alluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised alluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	3		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	3		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	153		
	Sub Total Item No : 11				
12	Brickwork				
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	21		
	Sub Total Item No : 12				
13	Finishes				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT LTD					
BOQ FOR WEIGH BRIDGE ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	209		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	209		
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantaling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	23		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	21		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	19		
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	21		
	Sub Total Item No : 13				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT LTD					
BOQ FOR WEIGH BRIDGE PLATFORM SYSTEM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	24		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 50 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	6		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	6		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	4		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	3		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	12		
	Sub Total Item No : 4				
5	Column Footing				
5.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	CUM	10		
5.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan	SQM	42		
	Sub Total Item No : 5				
6	Site Treatment				
6.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiopurfiles 20 EC. As Per 6131_paret-II Consentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / SQM of surface is recommended as per I.S	SQM	53		
	Sub Total Item No : 6				
7	Filling				
7.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	3		
	Sub Total Item No : 7				
8	Slabs				
8.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	7		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT LTD					
BOQ FOR WEIGH BRIDGE PLATFORM SYSTEM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	7		
	Sub Total Item No : 8				
9	Reinforcement				
9.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
	Sub Total Item No : 9				
10	Brickwork				
10.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 - fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	3		
	Sub Total Item No : 10				
11	Finishes				
11.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	27		
	Sub Total Item No : 11				
12	Weigh Bridge Plate Form System				
12.1	Providing, Installing and Commissioning Fully Electronic Pitless weighbridge of 50 MT capacity and accuracy of ± 5 Kg with platform size of 9 m x 3 m and including civil work structure as per design provided and Double Ended Shear Beam Type Load cells - 30 MT load cells - 6 Nos., Electronic Digitizer with Inbuilt Data Storage Facility - 01 No., IBM Compatible 104 Key, Key-Board - 01 No., Junction Box — IP67 Protected with Cable Glance -01 No., Corner Card PCB with Variable Register (Trimp Port) - 01 No., 1" Inch Extra Display (Window Display) - 01 No., UPS with Battery backup System (with battery) - 01 No. Standard NUT, BOLT & WASHER Bag - 01 Bag, Lightning Protector Device - 01 Set. , Power Protection Assembly 01 No., Suitable i core Personal computer supporting minimum 5 GB RAM and 500 GB HDD with HP laser printer all complete. -	NO	1		
	Sub Total Item No : 12				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ADMIN BUILDING					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	189		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	CUM	143		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Sand Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the earth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	92		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	92		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	23		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth R	CUM	61		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	83		
	Sub Total Item No : 4				
5	DPC				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	232		
	Sub Total Item No : 5				
6	RCC BEAM				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	22		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in.	SQM	168		
	Sub Total Item No : 6				
7	Site Treatment				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ADMIN BUILDING					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Consentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	210		
	Sub Total Item No : 7				
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each dispoisted layer by ramming and watering	CUM	107		
	Sub Total Item No : 8				
9	Slab				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	26		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in.	SQM	230		
	Sub Total Item No : 9				
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	6		
	Sub Total Item No:10				
11	opening				
11.1	Provoding and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised alluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised alluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	8		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	11		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	kg	284		
	Sub Total Item No : 11				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ADMIN BUILDING					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
12	Brick Work				
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level upto floor two level	CUM	66		
Sub Total Item No : 12					
13	Finishing				
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	1170		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	1170		
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	223		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	210		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	19		
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	21		
Sub Total Item No : 13					
14	Sanitary, Drainage and Water line Work				
14.1	Providing and Fixing Flat back wash basin Colour glazed 630 x 510 size with fitting cromium plated taps 32 mm waste pipe and 15 mm Heavy duty swan neck pillar cock etc. complete.	NO	2		
14.2	Providing and fixing Kitchen sink with C.I. or M.S. brackets, painted white including cutting holes in walls and making good the same but excluding fittings. (C) Vitreous China Sink.(i) 600mm x 450mm x 150mm size	NO	1		
14.3	Providing and fixing wsh down water closet (European type, W.C. Pan) with integral P or S trap including jointing the trap with soil pipe in Cement Mortar 1:1 (1-Cement : 1-fine sand) (Seal and cover to be measured and paid for separately)(A) vitreous China Pattern :(i) in white colour	NO	2		
14.4	Providing and fixing Urinal or approved quality including conecting the Urinal with waste pipe , tap etc. complete.(A) White earthenware flat back or corner type size 430mm x 260mm x 350mm	NO	2		
14.5	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 75 mm diameter with jali of the following nominal diameter of self cleansing design with C.I scread down or hinged grating including the cost of cutting and making good the walls.	NO	7		
14.6	Providing and fixing 600mm x 450mm bevelled edge mirrror of superior glass mounted on 6mm thick A.C. sheet or plywood sheet and fixing to wooden pluge with C.P. brass screws and washers.	NO	2		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ADMIN BUILDING					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
14.7	Providing and fixing S.W. gully trap with C.I. grating brick masonry chamber and water tight C.I. cover with frame of 300mm x 300mm size (inside) with standard weight.(i) Square mouth traps.(B) 150mm x 100mm size P or R type	NO	4		
14.8	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with bricks having crushing strength not less than 35Kg/Cm ² in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete.(i) Inside dimensions 455mmx 610mm and 450mm deep for single pipe line.	NO	2		
14.9	Constructing Manhole with R.C.C. top slab in 1:2:4 mix (1-cement :2- coarse sand : 4-graded stone aggregate 20mm nominal size) foundation concrete 1:3:6 mix (1-cement : 3- coarse sand :6-Brick bats 40 + 50mm size) inside plastering 15mm thick with Cement Mortar 1:3 (1-Cement : 3- coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1-Cement :2 Coarse sand :4-stone aggregate 20mm nominal size) finished smooth complete including curing and festing (i) Inside size 900mm x 1200mm and 1.5M. deep including C.I. cover with frame size 560mm diameter total weight of cover and frame to be not less than 128 kgs. (Wt. of cover 64 Kg. and Wt. of frame 64 Kg.)(A) With 230mm thick walls of brick msonry using brick having crushing strength not less than 35Kg. / Sq.cm. in Cement Mortar 1:5 (1-Cement: 5-Coarse sand) (1) A type depth 0.90 Metre for 150mm diameter sewer	NO	5		
14.10	Providing and fixing screw down bib taps of following size.(A) Brass screw down bib tap polished bright. (i) 15mm dia.	NO	5		
14.11	Providing and fixing brass screw down stop tap.(A) 15mm dia. ,	NO	2		
14.12	Providing and fixing Gun metal check or non-return fullway wheel valve.(C) 25mm dia.	NO	1		
14.13	Providing and fixing Gun metal check or non-return fullway wheel valve.(D) 32mm dia.	NO	1		
14.14	Providing and fixing chromium plated brass half trun flush cock of approved quality including fixing in pipe line etc. complete.(ii) 25mm dia.	NO	2		
14.15	Providing and fixing to wall, ceiling and floor galvanised Mild steel tubes (Medium grade) of the following nominal bore, tube fitting and clamps including making good the wall ceiling and floor.(A) 15mm	RMT	11		
14.16	Providing and fixing to wall, ceiling and floor galvanised Mild steel tubes (Medium grade) of the following nominal bore, tube fitting and clamps including making good the wall ceiling and floor.(C) 25mm	RMT	37		
14.17	Providing and laying in trenches galvanised mild steel tubes (Medium grade) of the following nominal bore, and tube fitting (Earthwork in trenches to be measured and paid for separately)(D) 40mm	RMT	210		
14.18	Providing and laying (to level or slopes) and jointing with stiff mixture of Cement Mortar in proportion 1:1 Salt glazed stoneware pipes including testing of pipes and joints complete.(A) 100mm dia.	RMT	63		
14.19	Providing and laying Cement concrete 1:5:10 (1-Cement : 5-Fine sand :10- Graded stone aggregate 40mm nominal size) bedding for stoneware pipes of following internal diameters with necessary formwork and curing complete.(A) 100 mm dia. (112 mm Ave.bed thickness)	RMT	63		
14.20	Providing erecting and fixing double coated ISI water tank of required capacity each with all necessary fittings and connection etc. complete on terrace	litres	5000		
Sub Total Item No : 14					
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ADMIN PARKING SHED					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Excavation for foundation upto 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(C) Dence	CUM	41		
	Sub Total Item No : 1				
2	PCC				
2.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	3		
2.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	4		
	Sub Total Item No : 2				
3	RCC				
3.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level	CUM	5		
3.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	37		
3.3	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level	CUM	7		
	Sub Total Item No : 3				
4	Reinforcement				
4.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	4		
	Sub Total Item No :4				
5	Filling				
5.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	34		
5.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	17		
	Sub Total Item No :5				
6	Flooring				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	17		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ADMIN PARKING SHED					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	7		
Sub Total Item No :6					
7	Brick work				
7.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	39		
Sub Total Item No : 7					
8	MS Fabrication				
8.1	Steel work, riveted in built up sections framed work including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. (A) In beams and joists, channels angles Tees, flats, with connecting plates or angle cleats as in main and cross beams. Hip and jack rafters, purlins conneted to common rafters and the like	KG	2829		
8.2	Providing and fixing colour coated Zinalume (R) AZ150 (min 150 gms/sq.mt. total on each side) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness (BMT) (0.5 mm TCT), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLORBOND (R) steel quality super durable polyester paint coat (with inorganic pigment). The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25 um exterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 9501050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five pan at nominal 180-250 mm center- to-center. The end rib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram/ One Square Metre)	SQM	135		
Sub Total Item No :8					
9	Finishes				
8.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	17		
8.2	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	87		
8.3	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	103		
Sub Total Item No : 9					
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR WORKERS TOILET / CHANGING ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	74		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Excavation for foundation for depth from 1.5 m to 3.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(A)Dence	CUM	36		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 50 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	36		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	19		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	9		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	15		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	32		
	Sub Total Item No : 4				
5	DPC Work				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1- Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	34		
	Sub Total Item No : 5				
6	Beam				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	8		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	60		
	Sub Total Item No : 6				
7	Site Treatment				
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / SQM of surface is recommended as per I.S	SQM	27		
	Sub Total Item No : 7				
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	51		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR WORKERS TOILET / CHANGING ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
Sub Total Item No : 8					
9	Slabs				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	7		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	31		
Sub Total Item No : 9					
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
Sub Total Item No : 10					
11	Openings				
11.1	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised aluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised aluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	4		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	2		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	132		
Sub Total Item No : 11					
12	Brickwork				
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	25		
Sub Total Item No : 12					
13	Finishes				
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	390		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	390		
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	27		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	27		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	19		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR WORKERS TOILET / CHANGING ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	21		
	Sub Total Item No : 13				
14	Sanitary, Drainage and Water line Work				
14.1	Providing and Fixing Flat back wash basin Colour glazed 630 x 510 size with fitting cromium platted taps 32 mm waste pipe and 15 mm Heavy duty swan neck piller cock etc. complete.	NO	1		
14.2	Providing and fixing Kitchen sink with C.I. or M.S. brackets, painted white including cutting holes in walls and making good the same but excluding fittings. (C) Vitreous China Sink.(i) 600mm x 450mm x 150mm size	NO	1		
14.3	Providing and fixing wsh down water closet (European type, W.C. Pan) with integral P or S trap including jointing the trap with soil pipe in Cement Mortar 1:1 (1-Cement : 1-fine sand) (Seal and cover to be measured and paid for separately)(A) vitreous China Pattern :(i) in white colour	NO	1		
14.4	Providing and fixing Urinal or approved quality including conecting the Urinal with waste pipe , tap etc. complete.(A) White earthenware flat back or corner type size 430mm x 260mm x 350mm	NO	2		
14.5	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 75 mm diameter with jali of the following nominal diameter of self cleansing design with C.I scread down or hinged grating including the cost of cutting and making good the walls.	NO	7		
14.6	Providing and fixing 600mm x 450mm bevelled edge mirror of superior glass mounted on 6mm thick A.C. sheet or plywood sheet and fixing to wooden plug with C.P. brass screws and washers.	NO	1		
14.7	Providing and fixing S.W. gully trap with C.I. grating brick masonry chamber and water tight C.I. cover with frame of 300mm x 300mm size (inside) with standard weight.(i) Square mouth traps.(B) 150mm x 100mm size P or R type	NO	4		
14.8	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with bricks having crushing strength not less than 35Kg/Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slab with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete.(i) Inside dimensions 455mmx 610mm and 450mm deep for single pipe line.	NO	2		
14.9	Constructing Manhole with R.C.C. top slab in 1:2:4 mix (1-cement :2-coarse sand : 4-graded stone aggregate 20mm nominal size) foundation concrete 1:3:6 mix (1-cement : 3- coarse sand :6-Brick bats 40 + 50mm size) inside plastering 15mm thick with Cement Mortar 1:3 (1-Cement : 3-coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1-Cement :2 Coarse sand :4-stone aggregate 20mm nominal size) finished smooth complete including curing and festing (i) Inside size 900mm x 1200mm and 1.5M. deep including C.I. cover with frame size 560mm diameter total weight of cover and frame to be not less than 128 kgs. (Wt. of cover 64 Kg. and Wt. of frame 64 Kg.)(A) With 230mm thick walls of brick msonry using brick having crushing strength not less than 35Kg. / Sq.cm. in Cement Mortar 1:5 (1- Cement: 5-Coarse sand) (1) A type depth 0.90 Metre for 150mm diameter sewer	NO	3		
14.10	Providing and fixing screw down bib taps of following size.(A) Brass screw down bib tap polished bright. (i) 15mm dia.	NO	5		
14.11	Providing and fixing brass screw down stop tap.(A) 15mm dia.	NO	2		
14.12	Providing and fixing Gun metal check or non-return fullway wheel valve.(C) 25mm dia.	NO	1		
14.13	Providing and fixing Gun metal check or non-return fullway wheel valve.(D) 32mm dia.	NO	1		
14.14	Providing and fixing chromium plated brass half trun flush cock of approved quality including fixing in pipe line etc. complete.(ii) 25mm dia.	NO	2		
14.15	Providing and fixing to wall, ceiling and floor galvanised Mild steel tubes (Medium grade) of the following nominal bore, tube fitting and clamps including making good the wall ceiling and floor.(A) 15mm	RMT	11		
14.16	Providing and fixing to wall, ceiling and floor galvanised Mild steel tubes (Medium grade) of the following nominal bore, tube fitting and clamps including making good the wall ceiling and floor.(C) 25mm	RMT	37		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR WORKERS TOILET / CHANGING ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
14.17	Providing and laying in trenches galvanised mild steel tubes (Medium grade) of the following nominal bore, and tube fitting (Earthwork in trenches to be measured and paid for separately)(D) 40mm	RMT	210		
14.18	Providing and laying (to level or slopes) and jointing with stiff mixture of Cement Mortar in proportion 1:1 Salt glazed stoneware pipes including testing of pipes and joints complete.(A) 100mm dia.	RMT	63		
14.19	Providing and laying Cement concrete 1:5:10 (1-Cement : 5-Fine sand :10-Graded stone aggregate 40mm nominal size) bedding for stoneware pipes of following internal diameters with necessary formwork and curing complete.(A) 100 mm dia. (112 mm Ave.bed thickness)	RMT	63		
14.20	Providing erecting and fixing double coated ISI water tank of required capacity each with all necessary fittings and connection etc. complete on terrace	litres	5000		
Sub Total Item No : 14					
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PRIVATE LIMITED					
BOQ FOR UNDER GROUND FIRE WATER TANK					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	653		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead. Ref.: Govt. of Gujarat,	CUM	614		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.3	Excavation for foundation for depth from 3.0 m to 5.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(A) Dence	CUM	1079		
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 50 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	116		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	116		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	116		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	129		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	29		
	Sub Total Item No : 4				
5	Site Treatment				
5.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	435		
	Sub Total Item No : 5				
6	RCC				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (A) Foundations, footings, Base of columns and Mass concrete.	CUM	134		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PRIVATE LIMITED					
BOQ FOR UNDER GROUND FIRE WATER TANK					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	132		
6.3	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	61		
6.4	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	CUM	2		
6.5	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	27		
6.6	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	891		
6.7	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	36		
6.8	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.		18		
6.9	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	12		
Sub Total Item No : 6					
7	Reinforcement				
7.1	Providing and fixing in position 11MM FE-500 Bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	40		
Sub Total Item No :7					
8	Filling				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PRIVATE LIMITED					
BOQ FOR UNDER GROUND FIRE WATER TANK					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	431		
	Sub Total Item No : 8				
9	Openings				
9.1	C.I. Cover with frame 600mm x 850mm for menhole	NO	1		
9.2	Providing and Fixing 50 cm wide MS ladder fabrication from MS flats 10 mm x 75 mm with 20 mm dia steel bar steps in double rows @ 30 cm c/c. The include stays of 10mm x 50 mm flats fixed at 3 m c/c with welding anchoring and 3 coats of anticorrosive paint.	RMT	9		
9.3	Ventilator coul - Providing and fixing in position C.I. Cowel 100 mm dia	NO	10		
	Sub Total Item No :9				
10	MS Fabrication				
10.1	Supplying, fabricating and embedding M.S. anchor bolts, channels, angles chequered plates (6 mm thick), all other type of inserts, ladder, precast trench cover etc. in concrete members during concreting as per drawings and instructions in all positions and at any level including keeping them in correct position and alignment, including adjustment of reinforcement and shuttering, etc. complete and including two coats of approved oil paint over one coat of zinc-rich primer over exposed surfaces of above mentioned inserts after embedment, etc. all as specified.	KG	315		
	Sub Total Item No :10				
11	Finishes				
11.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	778		
11.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	778		
	Sub Total Item No : 11				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR FIRE PUMP HOUSE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	52		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	CUM	52		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Sand Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 50 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	9		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	11		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	13		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	16		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	169		
	Sub Total Item No : 4				
5	Column Footing				
5.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	SQM	2		
5.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	17		
	Sub Total Item No : 5				
6	Column Above Ground level				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	CUM	1		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	8		
	Sub Total Item No : 6				
7	DPC Work				
7.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	8		
	Sub Total Item No : 7				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR FIRE PUMP HOUSE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
8	Beam				
8.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	7		
8.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	81		
Sub Total Item No : 8					
9	Site Treatment				
9.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurples 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	53		
Sub Total Item No : 9					
10	Filling				
10.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	12		
Sub Total Item No : 10					
11	Slabs				
11.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	13		
11.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	63		
Sub Total Item No : 11					
12	Reinforcement				
12.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	Mt	3		
Sub Total Item No : 12					
13	Openings				
13.1	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised alluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised alluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	3		
13.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	2		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR FIRE PUMP HOUSE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
13.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	Kg	131		
Sub Total Item No : 13					
14	Brick work				
14.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	23		
Sub Total Item No : 14					
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR TRUCK WASH AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	180		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead. Ref.: Govt. of Gujarat,	CUM	136		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Sand Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	24		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	24		
2.3	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	32		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	18		
	Sub Total Item No : 3				
4	PCC				
4.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	39		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	45		
	Sub Total Item No : 4				
5	RCC Wall				
5.1	Providing and laying controlled cement concrete M-20 and curing complete, including the cost of form work and exculding reinforcement for reinforced concrete work in:(a) Wall from top of foundation level up to floor two level.	SQM	7		
5.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (C) Vertical surface such as walls (any thickness) partitions and the like including attached buttresses & string course & the like	SQM	9		
	Sub Total Item No : 5				
6	Reinforcement				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR TRUCK WASH AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
6.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	Mt	1		
	Sub Total Item No : 6				
7	Brick work				
7.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	58		
	Sub Total Item No : 7				
8	Finishes				
8.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	68		
8.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	68		
8.3	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	Rmt	36		
	Sub Total Item No : 8				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SOLID WASTE STORAGE SHED					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	306		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead. Ref.: Govt. of Gujarat,	CUM	53		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.3	Rolling and consolidation using vibratory road roller 8 - 10 tonne capacity (incl. watering)(A) Earth work (layer not exceeding 200mm thickness)	CUM	2252		
	Sub Total Item No : 1				
2	PCC				
2.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) <u>Foundation and Plinth</u>	CUM	68		
2.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	123		
	Sub Total Item No : 2				
3	RCC				
3.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level. R & B SOR 2023- 4,Bharuch District , Item Code. 05024DA, Item No.5.8.2, Page No. 74	CUM	31		
3.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	137		
3.3	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level	CUM	7		
3.4	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	75		
3.5	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	SQM	84		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SOLID WASTE STORAGE SHED					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
3.6	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	399		
	Sub Total Item No : 3				
4	Reinforcement				
4.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	46		
	Sub Total Item No : 4				
5	Filling				
5.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	261		
5.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	615		
5.3	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	615		
	Sub Total Item No : 5				
6	Flooring				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	308		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	30		
	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	214		
	Sub Total Item No : 6				
7	MS Fabrication				
7.1	Steel work, riveted in built up sections framed work including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. (A) In beams and joists, channels angles Tees, flats, with connecting plates or angle cleats as in main and cross beams. Hip and jack rafters, purlins conneted to common rafters and the like	KG	88361		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SOLID WASTE STORAGE SHED					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7.2	Providing and fixing colour coated Zinalume (R) AZ150 (min 150 gms/sq.mt. total on each side) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45 mm Base Metal Thickness (BMT) (0.5 mm TCT), Hi-strength steel with min.550 MPa yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLORBOND (R) steel quality super durable polyester paint coat (with inorganic pigment). The paint shall have a total coating thickness of nominal 35 um, comprising of nominal 25 um exterior coat on top surface and nominal 10 um reverse coat on back surface. Profile sheet shall have nom. 9501050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five pan at nominal 180-250 mm center- to-center. The end rib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25 um Zinc-Tin alloy coated, Hex head, self-drilling screw etc. complete. (weight of profile 4.52 Kilogram/ One Square Metre)	SQM	3228		
	Sub Total Item No :7				
8	Finishes				
8.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	438		
8.2	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	569		
8.3	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	1007		
	Sub Total Item No : 8				
9	HDPE Liner Work				
	1.5 mm HDPE Liner at the bottom of the storage area e 1 em Inc u es provi mg an a y o microns virgin quality HDPE liner. It shall be applied on the compacted base and anchored below in the soil as shown in the section drawing. It shall be sealed and packed from both ends with the existing layers by employing combiwedge fusion process. The over lapping between two HDPE sheets shall be minimum 100 mm and the machine welding shall produce 2 seams. The lining material shall be of highest quality high density polyethylene (HDPE) sheeting, manufactured in using virgin high density polyethylene resin entirely free of Plasticizers or other filler materials with all labours, tools, tackles, machineries and transportation. The material shall not contain more than 3% of carbon black, antioxidants and thermal stabilizers. It should comply all the physico chemical properties as specified i.e. Tear resistance, Puncture resistance, Tensile strength at yield and break, Carbon black content, density, etc. All the individual sheets shall be tested accordingly. The measurements shall be taken of the covered area only and no overlaps will be considered. Refer Item No. 2 for detailed specifications of Technical Specifications in the Technical Bid Document. -	SQM	2332		
	Sub Total Item No : 9				
10	Geotextile Liner				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR SOLID WASTE STORAGE SHED					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
	Providing and Laying of 500 gsm Geotextile Liner The item includes providing and laying of 500 gsm Geotextile liner on the HDPE liner applied as above to protect the liner. Refer Item No. 2 for detailed specifications of Technical Specifications in the Technical Bid Document -	SQM	2332		
	Sub Total Item No : 10				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR WASTE STABILIZATION AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	437		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	88		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	88		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	101		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	110		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	23		
	Sub Total Item No : 4				
5	Site Treatment				
5.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurples 20 EC. As Per 6131_paret-II Consentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	437		
	Sub Total Item No : 5				
6	Slabs				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level	CUM	110		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	23		
	Sub Total Item No : 6				
7	Reinforcement				
7.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	14		
	Sub Total Item No : 7				
8	HDPE Liner				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR WASTE STABILIZATION AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
8.1	1.5 mm HDPE Liner at the bottom of the storage area e 1 em Inc u es provi mg an a y o microns virgin quality HDPE liner. It shall be applied on the compacted base and anchored below in the soil as shown in the section drawing. It shall be sealed and packed from both ends with the existing layers by employing combi wedge fusion process. The over lapping between two HDPE sheets shall be minimum 100 mm and the machine welding shall produce 2 seams. The lining material shall be of highest quality high density polyethylene (HDPE) sheeting, manufactured in using virgin high density polyethylene resin entirely free of Plasticizers or other filler materials with all labours, tools, tackles, machineries and transportation. The material shall not contain more than 3% of carbon black, antioxidants and thermal stabilizers. It should comply all the physico chemical properties as specified i.e. Tear resistance, Puncture resistance, Tensile strength at yield and break, Carbon black content, density, etc. All the individual sheets shall be tested accordingly. The measurements shall be taken of the covered area only and no overlaps will be considered. Refer Item No. 2 for detailed specifications of Technical Specifications in the Technical Bid Document. -	SQM	437		
	Sub Total Item No : 8				
9	Geotextile Liner				
9.1	Providing and Laying of 500 gsm Geotextile Liner The item includes providing and laying of 500 gsm Geotextile liner on the HDPE liner applied as above to protect the liner.	SQM	437		
	Sub Total Item No : 9				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF TRANSFORMER YARD					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	42		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	PCC				
2.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	3		
	Sub Total Item No : 2				
3	RCC M20				
3.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (A) Foundations footings, Base of columns and Mass concrete	CUM	8		
	Sub Total Item No : 3				
4	Reinforcement				
4.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	1		
	Sub Total Item No : 4				
5	MS FABRICATION				
5.1	Steel work, welded in built up sections framed work including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. (A)In beamsand joists, channels angles Tees, flats, with connecting plates or angle cleats as in main and cross beams. Hip and jack rafters, purlins conneted to common rafters and the like	Kg	525		
	Sub Total Item No : 5				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION DGVCL YARD					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	42		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	PCC				
2.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	3		
	Sub Total Item No : 2				
3	RCC M20				
3.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (A) Foundations footings, Base of columns and Mass concrete	CUM	8		
	Sub Total Item No : 3				
4	Reinforcement				
4.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	1		
	Sub Total Item No : 4				
5	MS FABRICATION				
5.1	Steel work, welded in built up sections framed work including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. (A)In beamsand joists, channels angles Tees, flats, with connecting plates or angle cleats as in main and cross beams. Hip and jack rafters, purlins conneted to common rafters and the like	KG	525		
	Sub Total Item No : 5				
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF DG & PANEL ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	103		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	27		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	15		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	9		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	10		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	17		
	Sub Total Item No : 4				
5	DPC Work				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	8		
	Sub Total Item No : 5				
6	Beam				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	9		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	61		
	Sub Total Item No : 6				
7	Site Treatment				
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Consentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	53		
	Sub Total Item No : 7				
8	Filling				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF DG & PANEL ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	71		
	Sub Total Item No : 8				
9	Slabs				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	6		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	4		
	Sub Total Item No : 9				
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
	Sub Total Item No : 10				
11	Openings				
11.1	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised alluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised alluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	3		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	6		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	229		
	Sub Total Item No : 11				
12	Brickwork				
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 - fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	29		
	Sub Total Item No : 12				
13	Finishes				
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	302		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	302		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF DG & PANEL ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	53		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	53		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	32		
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	53		
Sub Total Item No : 13					
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF CANTEEN & WORKER REST ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	231		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Sand Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	260		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	456		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	36		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	50		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	44		
	Sub Total Item No : 4				
5	DPC Work				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	500		
	Sub Total Item No : 5				
6	BEAM				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	20		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	157		
	Sub Total Item No : 6				
7	Site Treatment				
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Consentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	473		
	Sub Total Item No : 7				
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each dispoisted layer by ramming and watering	CUM	145		
	Sub Total Item No : 8				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF CANTEEN & WORKER REST ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
9	Slabs				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	54		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforce concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth..	SQM	9		
9.3	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	26		
Sub Total Item No : 9					
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	9		
Sub Total Item No : 10					
11	Openings				
11.1	Providing and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised aluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised aluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	8		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm @ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	11		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	1229		
Sub Total Item No : 11					
12	Brick work				
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 - fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	92		
Sub Total Item No : 12					
13	Finishing				
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	1952		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	1952		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF CANTEEN & WORKER REST ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finished with flush pointing & cleaning the surface etc. complete for antiskit	SQM	473		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	473		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	19		
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	21		
Sub Total Item No : 13					
14	Sanitary, Drainage and Water line Work				
14.1	Providing and Fixing Flat back wash basin Colour glazed 630 x 510 size with fitting cromium plated taps 32 mm waste pipe and 15 mm Heavy duty swan neck pillar cock etc. complete.	NO	2		
14.2	Providing and fixing Kitchen sink with C.I. or M.S. brackets, painted white including cutting holes in walls and making good the same but excluding fittings. (C) Vitreous China Sink.(i) 600mm x 450mm x 150mm size	NO	1		
14.3	Providing and fixing wsh down water closet (European type, W.C. Pan) with integral P or S trap including jointing the trap with soil pipe in Cement Mortar 1:1 (1-Cement : 1-fine sand) (Seal and cover to be measured and paid for separately)(A) vitreous China Pattern :(i) in white colour	NO	2		
14.4	Providing and fixing Urinal or approved quality including connecting the Urinal with waste pipe , tap etc. complete.(A) White earthenware flat back or corner type size 430mm x 260mm x 350mm	NO	2		
14.5	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 75 mm diameter with jali of the following nominal diameter of self cleansing design with C.I scread down or hinged grating including the cost of cutting and making good the walls.	NO	7		
14.6	Providing and fixing 600mm x 450mm bevelled edge mirror of superior glass mounted on 6mm thick A.C. sheet or plywood sheet and fixing to wooden pluge with C.P. brass screws and washers.	NO	2		
14.7	Providing and fixing S.W. gully trap with C.I. grating brick masonry chamber and water tight C.I. cover with frame of 300mm x 300mm size (inside) with standard weight.(i) Square mouth traps.(B) 150mm x 100mm size P or R type	NO	4		
14.8	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with bricks having crushing strength not less than 35Kg/Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg.) (R.C.C. top slabe with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete.(i) Inside dimensions 455mmx 610mm and 450mm deep for single pipe line.	NO	2		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF CANTEEN & WORKER REST ROOM					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
14.9	Constructing Manhole with R.C.C. top slab in 1:2:4 mix (1-cement :2-coarse sand : 4-graded stone aggregate 20mm nominal size) foundation concrete 1:3:6 mix (1-cement : 3- coarse sand :6-Brick bats 40 + 50mm size) inside plastering 15mm thick with Cement Mortar 1:3 (1-Cement : 3-coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1-Cement :2 Coarse sand :4-stone aggregate 20mm nominal size) finished smooth complete including curing and festing (i) Inside size 900mm x 1200mm and 1.5M. deep including C.I. cover with frame size 560mm diameter total weight of cover and frame to be not less than 128 kgs. (Wt. of cover 64 Kg. and Wt. of frame 64 Kg.)(A) With 230mm thick walls of brick msonry using brick having crushing strength not less than 35Kg. / Sq.cm. in Cement Mortar 1:5 (1- Cement: 5-Coarse sand) (1) A type depth 0.90 Metre for 150mm diameter sewer	NO	5		
14.10	Providing and fixing brass screw down stop tap.(A) 15mm dia.	NO	2		
14.11	Providing and fixing Gun metal check or non-return fullway wheel valve.(C) 25mm dia.	NO	1		
14.12	Providing and fixing Gun metal check or non-return fullway wheel valve.(D) 32mm dia.	NO	1		
14.13	Providing and fixing chromium plated brass half trun flush cock of approved quality including fixing in pipe line etc. complete.(ii) 25mm dia. R & B SOR 2023-24,Bharuch District , Item Code.23032B, Page No. 175	NO	2		
14.14	Providing and fixing to wall, ceiling and floor galvanised Mild steel tubes (Medium grade) of the following nominal bore, tube fitting and clamps including making good the wall ceiling and floor.(A) 15mm	RMT	11		
14.15	Providing and fixing to wall, ceiling and floor galvanised Mild steel tubes (Medium grade) of the following nominal bore, tube fitting and clamps including making good the wall ceiling and floor.(C) 25mm	RMT	37		
14.16	Providing and laying in trenches galvanised mild steel tubes (Medium grade) of the following nominal bore, and tube fitting (Earthwork in trenches to be measured and paid for separately)(D) 40mm	RMT	210		
14.17	Providing and laying (to level or slopes) and jointing with stiff mixture of Cement Mortar in proportion 1:1 Salt glazed stoneware pipes including testing of pipes and joints complete.(A) 100mm dia.	RMT	63		
14.18	Providing and laying Cement concrete 1:5:10 (1-Cement : 5-Fine sand :10- Graded stone aggregate 40mm nominal size) bedding for stoneware pipes of following internal diameters with necessary formwork and curing complete.(A) 100 mm dia. (112 mm Ave.bed thickness)	RMT	63		
14.19	Providing erecting and fixing double coated ISI water tank of required capacity each with all necessary fittings and connection etc. complete on terrace	litres	5000		
Sub Total Item No : 14					
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PVT LTD					
BOQ FOR LEACHATE TREATMENT PLANT					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	174		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	CUM	155		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.3	Excavation for foundation for depth from 3.0 m to 5.0 m including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(c)Dence	CUM	207		
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	24		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	24		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	23		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	24		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	14		
	Sub Total Item No : 4				
5	SITE TREATMENT				
5.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	116		
	Sub Total Item No : 5				
6	RCC				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (A) Foundations, footings, Base of columns and Mass concrete.	CUM	29		
6.2	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (A) Foundations, footings, Base of columns and Mass concreteProviding and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (B) Walls, from top of foundation level upto floor two level.	CUM	43		
6.3	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	20		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PVT LTD					
BOQ FOR LEACHATE TREATMENT PLANT					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
6.4	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	CUM	2		
6.5	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	13		
6.6	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns Pillars Posts and struts. (1) Square Rectangular Polygonal in plan.	SQM	296		
6.7	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	36		
6.8	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns Pillars Posts and struts. (1) Square Rectangular Polygonal in plan.		18		
6.9	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	6		
Sub Total Item No : 6					
7	Reinforcement				
7.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	12		
Sub Total Item No : 7					
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	206		
Sub Total Item No : 8					
9	Openings				
9.1	C.I. Cover with frame 600mm x 850mm for menhole	NO	1		
9.2	Providing and Fixing 50 cm wide MS ladder fabrication from MS flats 10 mm x 75 mm with 20 mm dia steel bar steps in double rows @ 30 cm c/c. The include stays of 10mm x 50 mm flats fixed at 3 m c/c with welding anchoring and 3 coats of anticorrosive paint.	RMT	9		
9.3	Vettilator coul - Providing and fixing in position C.I. Cowel 100 mm dia	NO	10		
Sub Total Item No : 9					
10	MS Fabrication				
10.1	Supplying, fabricating and embedding M.S. anchor bolts, channels, angles chequered plates (6 mm thick), all other type of inserts, ladder, precast trench cover etc. in concrete members during concreting as per drawings and instructions in all positions and at any level including keeping them in correct position and alignment, including adjustment of reinforcement and shuttering, etc. complete and including two coats of approved oil paint over one coat of zinc-rich primer over exposed surfaces of above mentioned inserts after embedment, etc. all as specified.	KG	315		
Sub Total Item No : 10					
11	Finishes				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PVT LTD					
BOQ FOR LEACHATE TREATMENT PLANT					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
11.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	256		
11.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powdered materials.	SQM	256		
	Sub Total Item No : 11				
12	Leachate Treatment Plant System				
12.1	Leachate Treatment Plant System	No	1		
	Sub Total Item No : 12				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR STORM WATER POND					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	928		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	CUM	122		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	59		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	59		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	86		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	86		
	Sub Total Item No : 4				
5	Brickwork				
5.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level upto floor two level	CUM	20		
	Sub Total Item No : 5				
6	Finishes				
6.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	669		
6.2	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	540		
6.3	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	16		
	Sub Total Item No : 6				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF SEPTIC TANK					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	47		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Sand Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the ealth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	4		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	6		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	4		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	3		
	Sub Total Item No : 4				
5	Slabs				
5.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	SQM	2		
5.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	12		
	Sub Total Item No : 5				
6	Reinforcement				
6.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	0.2		
	Sub Total Item No : 6				
7	Brickwork				
7.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	Cum	14		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF SEPTIC TANK					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
Sub Total Item No : 7					
8	Finishes				
8.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	42		
8.2	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	14		
8.3	Providing and laying (to level or slopes) and jointing with stiff mixture of Cement Mortar in proportion 1:1 Salt glazed stoneware pipes including testing of pipes and joints complete.(B) 150mm dia. Also Providing and laying Cement concrete 1:5:10 (1-Cement : 5-Fine sand :10-Graded stone aggregate 40mm nominal size) bedding for stoneware pipes of following internal diameters with necessary formwork and curing complete.(B) 150mm dia. (166mm Ave. bed thickness)	RMT	11		
8.4	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	16		
Sub Total Item No : 8					
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR DIESEL STORAGE AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	36		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	CUM	31		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the earth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	8		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	8		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	6		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	11		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	23		
	Sub Total Item No : 4				
5	DPC Work				
5.1	Providing and laying damp proof course 25mm thick cement concrete 1:2:4 (1-Cement : 2 coarse sand : 4 stone aggregate 10 mm nominal size) and curing complete Extra for providing and mixing water proofing material in Cement concrete in mix proportion recommended by the manufacturers.	SQM	5		
	Sub Total Item No : 5				
6	Beam				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	6		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	44		
	Sub Total Item No : 6				
7	Site Treatment				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR DIESEL STORAGE AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7.1	Carring out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131_paret-II Concentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S	SQM	27		
Sub Total Item No : 7					
8	Filling				
8.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	41		
Sub Total Item No : 8					
9	Slabs				
9.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level.	CUM	6		
9.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	30		
Sub Total Item No : 9					
10	Reinforcement				
10.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
Sub Total Item No : 10					
11	Openings				
11.1	Provoding and fixing flush door shutters, solid core construction with frame of first class hardwood with cross board and face veneer or plywood face panels, including anodised alluminium butt hinges with necessary screws. (B) Non decorative type and block board core anodised alluminium butt hinges in flush door shutters (2) 35 mm thick. Extra for using bright finished M.S. piano hinges of (A) Nickel plated piano hinges.	SQM	3		
11.2	Providing and fixing window having extruded aluminum Colour anodized section frame main outer size 127mm x 38.10mm x 1.35mm @wt. 1.384kg/m, horizontal Four track member size 122.20mm x 31.75mm x 1.10mm@ wt 1.205 kg/m, vertical member of size 122.20mm x 31.75mm x 1.50mm @1.398 kg/mt with sliding shutters of horizontal member size 40mm x 18mm x 1.29mm@ 0.456kg/mt ,vertical member of size 40mm x 18mm x 1.29mm @ 0.456 kg/mt with 5 mm thick transparent bronze colour tinted float glass with powder coated aluminum fittings and fixtures and transparent silicon sealant glass fixing to frame as per details etc Complete for window.	SQM	3		
11.3	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	153		
Sub Total Item No : 11					
12	Brickwork				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR DIESEL STORAGE AREA					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
12.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1-Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	CUM	24		
	Sub Total Item No : 12				
13	Finishes				
13.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	225		
13.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	225		
13.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	28		
13.4	Providing water proofing treatment on terrace with smooth finishing including all materials and labour etc. complete.	SQM	27		
13.5	Providing and fixing 110mm dia P.V.C. rain water pipe (10 kg/sqcm); including all fixtures like bends, tees, shoe etc. joined with resin of approved brand and manufacture etc. complete	RMT	9		
13.6	Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete.	RMT	19		
13.7	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	RMT	27		
13.8	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	SQM	27		
	Sub Total Item No : 13				
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PRIVATE LIMITED					
BOQ FOR COMPOUND WALL					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	1424		
	Dence/Hard murrum or Soil Not requiring Blasting				
1.2	Mass Excavation executed with mechanised efforts/machineries for foundation for depth from 1.5 m to 3.0 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 500 mt. lead.	CUM	712		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering.	CUM	3831.00		
	Sub Total Item No : 2				
3	PCC				
3.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	140		
	Sub Total Item No : 3				
4	RCC				
4.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in				
4.1	(A) Foundations, footings, Base of columns and Mass concrete-	CUM	117		
4.2	(B) Columns, Pillars posts and struts upto floor two level.	CUM	242		
4.3	(C) Slabs,landing,shelves,Balconies Lintels, Beams, Girders and Cantilever upto floor two level	CUM	98		
4.4	(D) Coping	CUM	49		
4.5	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	161		
4.6	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	1379		
4.7	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (H) (1) Sides and soffits of Beams Beam Haunchings cantilevers Girders Bressumers and Lintels not exceeding 1 M. in Depth.	SQM	753		
	Sub Total Item No : 4				
5	Reinforcement				
5.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	50		
	Sub Total Item No: 5				
6	Brick Work				
6.1	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in Cement Mortar 1:6 (1- Cement : 6 -fine sand)(B) Conventional For brick work in superstructure above plinth level mupto floor two level	Cu.M	722.00		
	Sub Total Item No : 6				
7	Finishing				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
META BOLT ENERGY PRIVATE LIMITED					
BOQ FOR COMPOUND WALL					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
7.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	4418		
7.2	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	4418.00		
7.3	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	8835		
	Sub Total Item No : 7				
8	Fencing				
8.1	Providing and fixing 1.20 Metre high fencing with 2.0 Metre long M.S. Angle posts 40mm x 40 mm x6 mm and oil painting 3 coats fixed at 2.5 Mt,C/c. with five Horizontan lines and two diagonals of galvanised steel barbed wire weighting 9.38 Kg. per 100 Metre, strained and fixed to posts with G.I,staples including fixing the postsin ground with 0.5 M x 0.5.M x 0.5 M. block in C.C1:5:10 etc complete	RMT	1420.00		
	Sub Total Item No : 8				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR MAIN ENTRY GATE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Excavation				
1.1	Mass Excavation executed with mechanised efforts/machineries for foundation upto 1.5 m depth from EGL including sorting out stacking of useful material & disposing off excavated stuff upto 50 mt. lead.	CUM	25		
	Dence/Hard murrum or Soil Not requiring Blasting				
	Sub Total Item No : 1				
2	Filling				
2.1	The item includes filling foundation and plinth with murrum or selected soil brought from outside of the site to construct earthen bunds on the periphery of the phase in layers not exceeding 20 cm. in depth and in such a way to maintain the prescribed side slope as shown. The item includes Excavation from borrow pits, transporting upto 25 km lead, filling, leveling, grading, dressing, watering and compaction of the earth from the excavation point to make earthen bunds in the prescribed side slopes.	CUM	7		
2.2	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete	CUM	3		
	Sub Total Item No : 2				
3	Metal Soiling				
3.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.	CUM	4		
	Sub Total Item No : 3				
4	PCC				
4.1	Providing and laying cement concrete 1:2:4 (1- Cement : 2- Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	CUM	3		
4.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. Height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (A) Foundations Footings Bases of Columns etc. and Mass concrete.	SQM	4		
	Sub Total Item No : 4				
5	Column Footing				
5.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	CUM	6		
5.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	16		
	Sub Total Item No : 5				
6	Columns Above Ground Level				
6.1	Providing and laying controlled cement concrete M.200 and curing complete excluding the cost of formwork and reinforcement for reinforced concrete work in (D) Columns, Pillars posts and struts upto floor two level.	CUM	1		
6.2	Providing formwork of ordinary timber planking so as to give a rough finish including centering shuttering strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M. and removal of the same for in situ reinforced concrete and plain concrete work in. (G) Columns PillarsPosts and struts. (1) Square Rectangular Polygonal in plan.	SQM	6		
	Sub Total Item No : 6				
7	Filling				
7.1	Filling available excavated earth (excluding rock) in trenches. plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering	CUM	12		
	Sub Total Item No : 7				

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR MAIN ENTRY GATE					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
8	Reinforcement				
8.1	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	2		
	Sub Total Item No : 8				
9	Openings				
9.1	Providing and fixing M.S. round or square bars with M.S.flats at required spacing in wooden frames of windows and clerestory windows.	KG	772		
	Sub Total Item No : 9				
10	Finishes				
10.1	20mm thick sand faced cement plaster on walls upto height 10 metres above ground level consisting of 12mm mthick backing coat of C.M. 1:3 (1-cement : 3 sand) and 8mm thick finishing coat of C.M. 1:1 (1-cement : 1-sand) etc. complete	SQM	3		
10.2	Finishing wall with water proofing cement paint of on wall surfaces (Two coats) to give an approved brand and manufacture and of required shape even shade after thoroughly brushing the surface to remove all dirt and remains of loose powered materials.	SQM	3		
10.3	& L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantaling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for antiskit	SQM	3		
	Sub Total Item No : 10				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR PEIZOMETER WELL					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Peizometer Wells (Test Bore Well)				
1.1	<p>Drilling of 200 mm diameter bore and 25 m to 30 m deep 4 Nos. of Peizometer wells (Test Bore wells), 1 Nos. each on Upstream and 3 Nos. on Downstream of the landfill phase - 1 in all types of soil including soft and hard rock and including cost of bentonite powder, caring of rig etc. complete. Drilling shall be done by suitable machine including Cleaning by Air compressor of required capacity complete. - Non SOR Item - Market Rate</p> <p>(a) Providing and lowering, laying and jointing in the above bore UPVC pipe of 150 mm diameter of ISI mark of approved make with working pressure of 6 Kg/Cm2 including the cost of required couplers, outer cap, solution etc. complete</p> <p>(b) Casing Pipe</p> <p>(c) Strainer Pipe</p> <p>(d) Supply and Packing of suitable and required size gravel in the annular space and at other location as required complete.</p> <p>(e) Supplying and Installing on site 40 mm diameter UPVC column pipe with threaded joints including necessary bends, fittings, supporting clamps at the top of the tube well, casing pipe, top cover, bottom piece etc. complete</p> <p>(f) Supplying, Erecting and Commissioning at site an electrically driven submersible pump capable of discharging 1 Cu.m./Hr at the desired head with suitable ISI mark 3 phase motor of KSB make and multi stage pump..</p> <p>(g) Supplying, Erecting and Commissioning at site electrical panel for operating the above pump.</p> <p>(h) Supplying, Installing and Connecting on site suitable approved make flat type cable, 1.5 Sq. mm., 3 core (Finolex make) for submersible pump above complete.</p>	No	7		
Total Amount					-

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF PERIPHERAL ROAD AND OTHER INTERNAL ROADS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Earthwork				
1.1	Clearing and grubbing road land including uprooting rank vegetation grass bushes, shrubs, sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) By mechanical means in area of light jungle	SQM	7436		
1.2	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed upto 50Mt.lead.	CUM	1487		
1.3	Rolling and consolidation using vibratory road roller 8 - 10 tonne capacity (incl. watering)(A) Earth work (layer not exceeding 200mm thickness)	CUM	1115		
Sub Total Item No : 1					
2	Construction of granular sub-base				
2.1	Providing & laying of Granular sub base (GSB) of graded granular material consisting of gravel, pabbles (80%) and crushed stone aggregate (20%) as per grading given in table 400-1 of the specification MORT&H and compactor to the required density with 8 - 10 tonne vibratory roller with plain drum or heavy pneumatic tyred roller of minimum 200 to 300 KN weight in all seasons as per MORT&H , maintaining the required slope & grade during the operation as approved by the engineer in charge & watering to the proper moisture content and sprinkled with the help of truck mounted water tank fitted with suitable arrangement. (fully saturated having CBR value greater or equal to 30)	CUM	1,115.40		
Sub Total Item No : 2					
3	Bases and Surface Courses				
3.1	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with hydrostatic sensor paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	CUM	1115		
3.2	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concetere work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 475 kg)	CUM	1,115.40		
3.3	Providing and fixing in position TMT FE 500, 32 mm dia dowel bars precoated with anticorrosive epoxy paint of required Dia. 60 cms. Long and at 30.00 cm. C/C and wherever directed including handling, straightening, necessary cutting supported by TMT FE 500, chairs with proper alignment by using properly designed assembly of Bulkheads lubricating half length with bituminous paint as directed etc. complete.rate	NOS	5,882.00		
3.4	Providing and fixing in position TMT FE 500, tie bars precoated with anticorrosive epoxy paint of 12 mm dia. 70 cms.long and at 30.00 cm. C/C and wherever directed including handling, straightening wrapping with paper of approved quality for half length, necessary cutting, handling, straightening , supported by assembly of TMT FE 500, chairs with proper alignment etc. complete.rate	NOS	1120		
3.5	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/SQM .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/SQM/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/SQM/ lux and Qd of 100 mcd/SQM/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, EasyLux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	SQM	7436		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF PERIPHERAL ROAD AND OTHER INTERNAL ROADS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
	Sub Total Item No : 3				
4	Metal Soling				
4.1	Providing and laying 230mm thk.rubble stone filling with 33% murrum in specified thickness with watering, compaction etc. complete.Rate analysis	CUM	1710		
	Sub Total Item No : 4				
Total Amount					

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF APPROACH ROADS (7.0 M WIDE)					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Earthwork				
1.1	Clearing and grubbing road land including uprooting rank vegetation grass bushes, shrubs, sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) By mechanical means in area of light jungle	SQM	16000		
1.2	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed upto 50Mt.lead.	CUM	6400		
Sub Total Item No : 1					
2	Construction of granular sub-base				
2.1	Providing & laying of Granular sub base (GSB) of graded granular material consisting of gravel, pabbles (80%) and crushed stone aggregate (20%) as per grading given in table 400-1 of the specification MORT&H and compactor to the required density with 8 - 10 tonne vibratory roller with plain drum or heavy pneumatic tyred roller of minimum 200 to 300 KN weight in all seasons as per MORT&H , maintaining the required slope & grade during the operation as approved by the engineer in charge & watering to the proper moisture content and sprinkled with the help of truck mounted water tank fitted with suitable arrangement. (fully saturated having CBR value greater or equal to 30)	CUM	2400		
Sub Total Item No : 2					
3	Bases and Surface Courses				
3.1	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with hydrostatic sensor paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	CUM	3700		
3.2	Providing and laying 25mm thick Semi dense bitumenous concrete using black crshed stone aggregate and filler materials as per gradation of M.O.R.T. & H. cspecification including using bitumen of VG-30 grade for mixing at the rate of 55.00Kg/ M.T. by weight of total mix (i.e. 5.50%) and including ixing of 0.1% by weight of asphalt and mixing the aggregate and bitumen by continuous batching drum mix plant and spreading the same by paver finisher and consolidation by vibratory roller including cost of all materials, fuel, labours, tools and plants, using contractor's own machineries. Desnity 2.3 kg/cum	MT	805		
3.3	Providing & Laying 50 mm thick compacted bituminious Mecadam (in one layer) with B.T. aggregate as per required gradation and using VG-30 grade bitumen for mixing with aggregate @3.5% i.e. 35.00 KG / MT of total mix and using Emulsion RS-1 for tack coat @ 2.5 KG/ 10 sq.m. on existing B.T. surface including supplying and mixing of saline modified bitumen @ 0.1% of weight of asphalt including heating and mixing in continuous batching drum mix plant transporting, spreading the same with paver finisher and consolidation with vibratory rollers including necessary fire wood, oil, lubricants, labour charges etc. using contractors own drum mix plant and required tools etc complete in accordance with the required specification. for 50mm thick (Compacted) Bituminous Macadam Desnity 2.1 kg/cum	MT	1470		

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR CONSTRUCTION OF APPROACH ROADS (7.0 M WIDE)					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
3.4	Providing and laying asphalt painting on B.T surface with bitumen VG-30 graded as rate 5.00 kg/10 sqm by mechanical sprayer in uniform layer and spreading the stone dust on prepared surface at the rate of 0.03 cum/10 sqm and rolling with smooth wheeled and pneumatic roller and brushing etc. complete	SQM	14000		
3.5	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, EasyLux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	SQM	14000		
3.6	Cat Eye / Road Stud / RPM: Supplying Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with Micro prismatic lens (No Glass bead lens) capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kgs. tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 & DO III Dt 11.06. 1997. The height, width and length shall not exceed 20 mm, 130 mm and 130 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The body of the marker should having finger grip for easy and accurate placement and application with epoxy / bituminous Adhesive as recommended by the manufacturer of the marker. The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in-charge. (R & B SOR 2023-24,Item code-26162 A Page No-243	No	200		
3.7	Preparing surface by Brushing with wire brushes for removing caked mud etc. sweeping with brooms and finally fanning the cleaned surface with gunney bags to remove all loose dirt etc.	SQM	14000		
	Sub Total Item No : 3				
				Total Amount	

NAME OF WORK - SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PVT. LTD.					
BOQ FOR DEVELOPMENT OF GREEN BELT WITH HORTICULTURE, LANDSCAPING AND PLANTATIONS					
SR NO	BRIEF DESCRIPTION OF ITEM	UNIT	QTY	BIDDER RATE	AMOUNT
1	Item No. 1 / Trenching				
1.1	Excavation for planting lawn/ shrub/ flower bed/ hedges/ edges/ canna bed in earth, soil of all types, soft murum, including removing the excavated material up to a distance of 50 mtrs. for a depth of 30 cms.	SQM	7027.00		
1.2	Mixing earth and sludge or manure in proportioning specified or directed	SQM	7026.00		
	Sub Total Item No : 1				
2	Item No. 2 / Grassing				
2.1	Mexican or Korian Grass Turf , Selection No.1 American blue grass, / Barmuda etc ready to fix lawn turf in Slabs/ Rolls of required variety as directed Rates Including breakage, & Transportation Damage losses.	SQM	8.00		
	Sub Total Item No : 2				
3	Item No. 3 / Tree Planting				
3.1	Fowering trees like Mogara, Murraya, Nerium, Ratrani etc. in poly bag (Height mini. 15 to 60 cm.) Specification:- Well Developed ,Fresh, Healthy half in bloom, free from pest and diseases.	Nos	2810.00		
3.2	Fowering trees like Gulmohar, Raintree, Pateletophorum, bottle brush, sonmohor, spathodia etc. in poly bag (Height mini. 3 to 4 ft.) Specification:- Minimum Girth 2 to 3 c.m. Minimum 4 to 5 Branches with Maximum number of Leaves, Plant should be Healthy condition Free from pest and diseases, well setled in appropriate size of Plybag, uniform in size and root system are undamaged.	Nos	13214.00		
	Sub Total Item No : 3				
4	Item No. 4 / Tree Guard				
4.1	Fixing and Transporting of self watering system tree guard- insertion of sapling in self watering tree guard and capping the bottom with expandable rubber seal. Supporting the bamboo with the help of cable tie. Bamboo to be buried 0.15 mt ht. below of excavated pit. Strengthening the bamboo in pit with adequate measures. Circulating the barbed wire around tree guard at middle ht. from bottom and fixing it. The rates excluding the cost of barbed wire, bamboo, expandable seal, tree guard and all other required material. Fixing to be carried out as per manual instruction.	Nos	4106.00		
	Sub Total Item No : 4				
Total Amount					

4. PLANT & MACHINERY

ANNEXURE

QUOTATION FOR FIRE HYDRANT SYSTEM					
Sr No.	Item Description	Quantity	Unit	Price	Total
A . Fire Hydrant System					
1	200mm dia MS C Class pipe	673.9	Rmt.		
2	150mm dia MS C Class pipe	310	Rmt.		
3	80mm dia MS C class pipe	80	Rmt.		
4	SS ISI fire hydrant valve	33	No.		
5	RRL hose pipe with 15mtr hose with SS ISI coupling	66	No.		
6	Short Branch pipe SS ISI	33	No.		
7	Double Door Hose box with standard size 16 gauge	33	No.		
8	40mm dia Air release valve	4	No.		
9	Wrapping coating 4mm thick	983	No.		
10	200mm dia PN 16 non rising sluice valve with required flange fittings	6	No.		
11	150mm dia PN 16non rising sluice valve with required flange fittings	6	No.		
12	Fire brigade inlet connection 4 way	2	No.		
13	100mm dia water monitor Model M with 100mm dia butterfly valve of PN 16	8	No.		
B . Pump Room - Mechanical Items					
1	250mm dia MS C Class pipe	12	Rmt.		
2	200mm dia MS C Class pipe	12	Rmt.		
3	RKB 125/30 5ST -20 - Pump Material of Construction -(Casing / casing cover/ diffusers/ inserts +Impeller+Wear Rings (Casing/ Impeller)+Shaft+Shaft Sleeve) =20-CI+Bronze+CI/NA+40 110KW/150HP-4P/3PH 110KW/150HP-4P/3PH IE2 1450RPM- FOOTMOUNTED,TEFC , IP 55, (S1),415+/- 10% V,3 Phase 50Hz+/- 5% AC supply with ambient 50oC,Class "F" insulation with temperature rise limited to Class "B" and altitude less than 1000 m above m.s.l. Efficiency values are conforming to IS 12615:2014/ IEC 60034-30-2014	1	No.		

Sr No.	Item Description	Quantity	Unit	Price	Total
4	RKB 125/27 - 4STG + 1800 RPM + 167 - Pump BHP(6R1080TA(RC))RKB 125/27 - 4STG + 1800 RPM + 167 BHP(6R1080TA(RC)) Material of Construction-(Casing/casing cover/ diffusers/inserts+Impeller+Wear Rings (Casing/ Impeller)+Shaft+Shaft Sleeve)=20-Cl+Bronze+Cl/NA+40C 8+SS 410H	1	No.		
5	CPHM 40/32 -02 - Pump Material ofConstruction-(Casing/casing cover/ diffusers/inserts +Impeller+Wear Rings (Casing/Impeller)+Shaft+Shaft Sleeve)=02-Cl+Bronze+Cl/Bronze+400 30KW/40HP-2P/3PH IE2 :2900RPM-FOOTMOUNTED,TEFC IP 55, (S1),415+/- 10% V,3 Phase 50Hz+/- 5% AC supply with ambient 50oC,Class "F" insulation with temperature rise limited to Class "B" and altitude less than 1000 m above m.s.l. performance values are conforming to IS 12615:2014/IEC 60034-30-2014	1	No.		
6	200mm dia sluice valve flange end with flange & fitting PN 25	6	No.		
7	80mm dia Sluice valve PN 25 type with flange & fitting	2	No.		
8	200mm dia Non return valve with flange & fittings PN 25 flange end ball type	2	No.		
9	80mm dia Non return valve flange end type	1	No.		
10	Pressure Vessel of Of 300mm dia	1	No.		
11	Priming tank for negative sution of pump	1	Lot		
12	25mm dia Air release valve	1	No.		
13	6" dia pressure gleceren field with Q type syphen tube & needle valve	3	No.		
14	Pressure limit switch with needle valve	3	No.		
15	200mm dia Foot valve with flange & fitting	2	No.		
16	80mm dia Foot valve with flange & fiutting	1	No.		
17	Electric Control Panel for catering Main , Jockey & Diesel Pump with a powder coated housing & required acessories	1	No.		
TOTAL COST					

LAB EQUIPMENTS

Sr.No.	Description	Qty.	Rate/Unit (Rs.)
1.	<p>“ELECTROQUIP” MUFFLE FURNACE (Standard Model)</p> <p>Max. Temperature : 1000 °C</p> <p>Internal Dimensions :4” x 4” x 9” (10 x 10 x 22 cms)</p> <p>Inner made of Ceramic Muffle</p> <p>Heater Kanthal A1 wire of thick gauge</p> <p>Outer body M.S powder coated.</p> <p>With DIGITAL Temperature PID Controller Indicator.</p>	1 No.	
2.	<p>“ELECTROQUIP” LABORATORY HOT AIR OVEN (STD)</p> <ul style="list-style-type: none"> • Construction : Double Walled. • Inner Chamber made of S.S 304 • Outer Chamber made of M.S Powder coated. • Well insulated Door with Silicone Gasket to prevent the heat loss. • High quality of Air Heater • Temp. Range : 5°C above ambient to 200°C . • Microprocessor based Temp. Controller with Digital Indicator • Internal Dimensions: 18” x 18” x 18”. • No. of shelves-2 (S.S) , Watts : 1500. <p>With Air Circulation with Motorised Blower.</p>	1 No.	
3.	<p>“ELECTROQUIP” MAKE B.O.D INCUBATOR (STD)</p> <ul style="list-style-type: none"> • Double wall construction • Inner Chamber made of S.S 304 • Outer body made of m.s Powder coated finish. • Insulation 70 mm Glass Wool /P.U.F insulation • Forced Air Circulation for uniform temperature • Hermetically sealed compressor, evaporation coil and fan cooled condenser. • Solid State PID Temp. Controller with Digital Indicator <p>Inner Chamber Size: (W X D x H) : 45 x 45 x 45 cms. (approx.)</p> <p>Capacity :3 CFT/ 90 Ltrs..</p>	1 No.	

4.	REMI make Deep Freezer (Quick Freezer)Vertical Model RQFV-170. (HSN Code : 84184010) 170 Liter Capacity, Temperature Range : upto -20 °C Controller : Electronic Temp. Controller , Display : LED <u>Salient Features :</u> <ul style="list-style-type: none"> • Low Temperature upto -20°C (in AC Room) • Stainless Steel Inner chamber • Extremely efficient PUF insulation to minimize heat loss • High-tech solid state digital indicator-cum-controller. Internal Dimensions (W x D x H) : 500 x 430 x 850 mm External Dimensions (W x D x H) : 630 x 580 x 1380 mm Inner chamber Material : Stainless Steel 304 Outer body material : Powder Coated CRCA Steel	1 No.	
	<u>Accessories for above Deep Freezer :</u> Servo controlled Voltage Stabilizer Model VS-02	1 No.	
5.	ELECTROQUIP make Hot Plate (Round) <ul style="list-style-type: none"> • Body and Plate made of S.S • Microprocessor based Temperature Controller with Digital Indicator. • With three heat control switch. • Max. Surface Temperature 300°C • Operates on 230 volts A.C • Size of Plate : 9” Dia. 	1 No.	
6.	LEELAM MAKE VACUUM PUMP (OIL SEALED) MODEL LM-50 Double Stage, Free Air Displacement : 50 Liters/min. Motor : ¼ HP with Vacuum Gauge & Regulator	1 No.	
7.	VEEGO make Digital Automatic Karl Fischer Titration Apparatus. Instrument with automatic dispenser for reagent, with built-in calibration/validation facility. Digital Display indicate volume of K/F Reagent added. Display Readability: 0.01 ml. Supplied with standard accessories : <ol style="list-style-type: none"> a) PTFE Titration Clamp b) Platinum electrode c) Microlitre Syringe Model: VEEGO/MATIC-D.	1 No.	

8.	<p>DBK MAKE DIGITAL COD DIGESTOR. (OPEN REFLUX METHOD) Suitable for COD method for monitoring wastewater influent and effluent, industrial process water and more. Aluminium Heating Block, Hole 39mm Dia x 80mm Depth for Tube 38mm Dia x 06 Nos. for sample 20ml each. Temp.: above amb. to 180°C, Timer : 99 Hr : 59 Min to switch off the heater after the test. Model 30 DHB 12 For 06 Samples (3 X 2) *Without Glass Parts & Accessories.</p>	1 No.	
	<p><u>Accessories for above C.O.D Digestor:</u> a) C.O.D Tubes ... 06 Nos. (Set) b) Air Condenser ... 06 Nos. (Set) c) Stand for COD Tubes... d) Stand for Air Condenser..</p>	1 Set. 1 No. 1 No. 1 No.	
	<p><u>OR</u> DBK MAKE DIGITAL COD DIGESTOR. (OPEN REFLUX METHOD) Suitable for COD method for monitoring wastewater influent and effluent, industrial process water and more. Aluminium Heating Block, Hole 39mm Dia x 80mm Depth for Tube 38mm Dia x 15 Nos. for sample 20ml each. Temp.: above amb. to 180°C, Timer : 99 Hr : 59 Min to switch off the heater after the test. Model 30 DHB 11 For 15 Samples (5 X 3) *Without Glass Parts & Accessories</p>	1 No.	
	<p>Accessories for above C.O.D Digestor: a) C.O.D Tubes ... 15 Nos. (Set) b) Air Condenser ... 15 Nos. (Set) c) Stand for COD Tubes d) Stand for Air Condenser</p>	1Set. 1 Set 1 No. 1 No.	
9.	<p>“ELECTROQUIP” Water Bath, (Digital), Fully S.S Double walled, Inner chamber & Outer Chamber made of S.S, Concentric Rings to use flask 50 ml. to 500 ml Capacity. Temp. Range : Above ambient to 99 °C. Lid : 6 holes x 75 mm dia. Inner Chamber size (L x W x H) : 10” x 14” x 4” Controller : Digital Temperature controller.</p>	1 No.	
10.	<p>ELECTROQUIP Soxhlet Extraction – Hot Plate type Temp. controlled by individual energy regulators with indicators. Size : for 3 Flasks, M.S Plate</p>	1 No.	
11.	<p>REMI Make Magnetic Stirrer with Hot Plate and Digital speed Indicator. Capacity : 2 Ltr. Model 2 ML H.</p>	1 No.	
12.	<p>Digital Orbital Shaker with Universal Tray – DBK Make Model 30 OSR 01 Digital speed indicator / controller with feed back system for good torque, Speed : 40 to 200 RPM. DIGITAL Switch Off Timer 99Hr.59Min with alarm. PMDC Geared Motor, Unique smooth mechanism, Orbit diameter 25mm. S.S.Universal Tray(420mmx 420 mm) with provision to change the Lotus clamp as per number and size of conical flasks. Capacity : 250ml. x 16 Flaks *With S.S Clamps for holding Flask Cap. 250 ml. (16 Nos.) (Without Conical Flasks)</p>	1 No.	

13.	BHANU” Make Water Still (Borosilicate glass) with built-in Safety Output Capacity : 4 Ltr/Hr. Model No. BASIC/PH4/EDU STILL CE	1 No.	
14.	SYSTRONICS Make Microprocessor based Digital pH Meter with Combined pH electrode & Temp. probe. (Auto Temp. Compensation, 3 point calibration , Resol. 0.01 pH) Model-361	1 No.	
15.	SYSTRONICS Make Microcontroller based Conductivity – TDS Meter with Cells (1.0 cc and 0.1 cc) and Temp. Probe. Model-308.	1 No.	
16.	SYSTRONICS Make Auto Ignition Micro Controller based Flame Photometer with Filters Na, K and Compressor. Model 1027	1 No.	
17.	SYSTRONICS Make Microcontroller based UV-Vis Spectrophotometer Model-117 Wavelength range : 200nm to 1100 nm Band width : 1 nm Wavelength Resolution : 0.1 nm With PC Link Software (Without PC & Printer)	1 No.	
18.	“RICO’ MAKE DIGITAL BOMB CALORIMETER WITH WATER JACKET WITH PUF INSULATION, SAFETY DEVICE, SENSOR PROBE, HIGH PRESSURE FLEXIBLE TUBING SET & CERTIFIED BOMB. TEMPERATURE RESOLUTION 0.01°C. SUPPLIED WITH STANDARD ACCESSORIES MODEL RSBT-5.	1 No.	
19.	“METTLER” Digital Analytical Balance Model ME-204. Capacity : 220 gm, Readability : 0.1 mg. Size of weighing pan : 90 mm Dia. *With internal Calibration.	1 No.	
20.	SCALETEC” Digital Precision Balance. Model SAB-203-E Max. Cap. 220 gm, Accuracy : 0.001 gm (1 mg) Pan size : 80 mm Dia., , LCD with Back Light Display *External Calibration	1 No.	
21	Pensky Marten Flash Point Apparatus. Ratan Ancillaries make. This apparatus is made as per IP 34, ASTM D-93 and IS 1448 (Part-I) 1270 (P:21) and IS 1209-1953 method B. Used for finding out Flash Point above 70°C and below 300°C. Model RAP-126 P.M. Flash point Apparatus with Electric Heated with Concealed Hot Plate & Oil Test Jet.	1 No.	
	OR Model RAP-127 P.M. Flash point Apparatus with Electronic Digital Temperature Indicator and Regulator. Oil Test Jet.	1 No.	
	<u>Optional:</u> a) Cat. No. RAP-125 a Open Clip for Converting Close Model to open cup test Model as per IP 35	1 No.	
	b) IP 15C Low Range Thermometer c) IP 16C Low Range Thermometer	1 No. 1 No.	

22.	<p>“ELECTROQUIP” Heating Mantle with Energy Regulator.</p> <ul style="list-style-type: none"> *Max. Surface Temp. 350 °C. *Aluminium housing – non rusting. * Epoxy powder coated finish. * Thick knitted fibre glass netting. * Energy Regulator power controller. *Usable with Round bottom flask. <p>Flask Capacity : 5.0 Ltr.</p>	1 No.	
23.	<p>“ELECTROQUIP” Heating Mantle with Energy Regulator.</p> <p>Flask Capacity : 2.0 Ltr.</p>	1 No.	
24.	<p>Analytical Weight Box F1 Class with NABL Calibration Certificate</p> <p>Capacity : 1 mg to 200 gm.</p> <ul style="list-style-type: none"> *All weights are made of S.S 304 <p>Total No. of Weights : 23 Nos.</p>	1 No.	

NAME OF WORK : SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ELECTRICAL EQUIPMENTS AND INSTALLATION WORK					
SR NO.	QTY	ITEM NAME	PRICE	UQM	AMOUNT
1.0					
		Use Different color of modular accessories for UPS and Row power for identification.			
1.1		Point wiring for Light / Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected with 6A Modular type switch / bell push & accessories and earth continuity of following type, erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected, with necessary Lamp holder/ceiling rose / H.D.Connector as directed.			
	242	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete-cat.III		Pt	
1.2		Point wiring for FAN with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of .ISI marked 1.1 KV Grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected with 6A Modular type switch and hum free EME four or more step type electronic fan regulator with separately mounted and accessories with earth continuity of following type erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected. with necessary ceiling rose / H.D.Connector as directed.			
	40	(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete-cat.III		Pt	
1.3		Point wiring for Individual Plugwith & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin Plug erected on PVC / Metallic/Wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories.			
1.3.1	45	[I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/mcb db board		Pt	
		(a) with medium class Rigid PVC pipe and accessories erected flushed on wall/ceiling complete-cat.III			
1.4	60	Point wiring for on board Looped Plug with 6A Modular type switch & 5 pin socket erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling with following type accessories - cat.III		Pt	
1.5		Providing following type of Modular Type Accessories mounted with PVC / metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate , modules erected with necessary connections as per site situation directed by Engineer In charge.-Cat-III			
1.5.1	3	TV Co-axial Socket outlet-		E.a.	
1.5.2	80	Blank Plate Single		E.a.	
1.5.3	25	Computer RJ-45 socket		E.a.	
1.5.4	80	16 Amp. SP one way switch		E.a.	
1.5.5	80	6/16Amp. Universal socket		E.a.	
1.6		Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed			
1.6.1	75	20 mm		Mtr	
1.6.2	900	25 mm		Mtr	
1.6.3	50	32 mm		Mtr	
1.7		Providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected concealed in /flushed on wall/ceiling, with 1.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size			
		(A) with medium class Rigid PVC pipe and accessories			
1.7.1	80	2 wire 1.5 sq. mm		Mtr	
1.7.2	80	2 wire 2.5 sq. mm		Mtr	
1.8		providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected in / on wall / ceiling with 2.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size			
		(A) with medium class Rigid PVC pipe and accessories			
1.8.1	525	2 wire 4 sq. mm		Mtr	
1.9		Providing & Erecting approved make following size of TV Co- axial flexible cable comprising inner conductor of solid bare copper insulated with Foam PE & Secondary conductor made of poly - Aluminium film bonded Al. Braids @ suitable coverage overall sheathed with black PVC insulation.			
1.9.1	75	RG-6		Mtr	
1.9.2	150	RG-11		Mtr	
1.10		Supplying & erecting approved make LAN cable of following size in existing pipe as per direction			
	75	CAT - 6		Mtr	
1.11		Providing & erecting main Distribution (MDF) indoor type, back mounted frame as per DoT standard approved with krone strips			
	5	Suitable for 10 pair		No	
		Sub Total 1.0			

NAME OF WORK : SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ELECTRICAL EQUIPMENTS AND INSTALLATION WORK					
SR NO.	QTY	ITEM NAME	PRICE	UQM	AMOUNT
2.0					
2.1		Design, Supplying, installing, testing of factory fabricated ready made Three phase APFC Panel Cubical Panel fabrication should be type tested as per IEC 61921, 61439:1&2 Capacitor Duty Contactor for switching as per following Steps Incomer Switch of MCCB type Icu=Ics=50KA at 400/440 Volts, with OC, SC, internal earth fault protection Incomer Switch of MCCB type Icu=Ics=50KA at 400/440 Volts, with OC, SC, internal earth fault protection, Copper tinned insulated Busbar, Cubical panel should be indoor type with IP 43 and IK 10, Metalized polypropylene film tye3-phase 550Volt Capacitor, De tuning Reactor for each capacitor, Panel having Short Circuit and Overload protection, Each step Capacitor having suitable MCB with Sc, OL, internal earth fault relay, Each stage having Stage Contactor (Capacitor load rating), PF regulator master controller having suitable steps with LCD display, Rs 485 Communication port, Indication LED Lamps for main incomer and ON-OFF for each capacitor bank, MS Chanel for Floor mounting, Cable entry as per site situation, Cooling fans for panel			
2.1.1	1	(g)250KVAR		No	
2.2	55	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark-cat-III		E.a.	
2.3		Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity			
	1	63 Amp.-cat-III		E.a.	
2.4		Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs. (The DBs should be used of same company of MCB to be used) suitable for			
		{A}-(b) sheet steel double door (IP-43)			
2.4.1	4	4 way		E.a.	
2.4.2	2	6 way		E.a.	
2.4.3	2	12 way		E.a.	
		{B} (b) sheet steel double door			
2.4.4	3	8 way		E.a.	
2.5		providing and erecting Approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V, 50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed-catIII			
2.5.1	8	25 Amps.DP		E.a.	
2.5.2	2	40Amps. DP		E.a.	
2.5.3	5	63 Amps. DP		E.a.	
2.6	5	Providing and erecting metallic vitrified danger notice board as per language suggested by engineer incharge for MEDIUM VOLTAGE installation to be erected as per IS-2551.		E.a.	
		Sub Total 2.0			
3.0					
		Follow IS code :3043 is the guideline for the earthing			
3.1	75	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.		KG	
3.2		Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in- Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80- 200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover. (approved make OEM has to submit test certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 W/ meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted.			
	5	(a) For Electrical Installation up to 440V in normal soil Length of pipe 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.		E.a.	
		Sub Total 3.0			

NAME OF WORK : SECURED LANDFILL PHASE FOR HAZARDOUS SOLID WASTE DISPOSAL					
METABOLT ENERGY PRIVATE LIMITED					
BOQ FOR ELECTRICAL EQUIPMENTS AND INSTALLATION WORK					
SR NO.	QTY	ITEM NAME	PRICE	UQM	AMOUNT
4.0					
4.1		Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand / Solid Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables			
4.1.1	1650	3 core 4 Sq. mm		Mtr	
4.1.2	2500	4 core 6 Sq. mm		Mtr	
4.2		Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables			
4.2.1	45	3.5 core 150Sq. mm		Mtr	
4.2.2	25	3.5 core 300 Sq. mm		Mtr	
4.3	80	Covering of cable with second class bricks or cement tiles laid cover the cable crosswise & also on both sides with covering of 7.5 Cm. layer of sand above & below cable (16 bricks per meter)		Mtr	
4.4		Providing & laying. R.C.C. Hume pipe for cable to be laid 90 cm. below ground across the road crossing or on floor with necessary material in an approved manner and making the ground as per original.			
4.4.1	80	150 mm dia		Mtr	
4.4.2	30	100 mm dia		Mtr	
4.5		Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.			
4.5.1	375	(a) 2 to 4 core 2.5 / 4 Sq. mm		E.a.	
4.5.2	225	(d) 2 to 4 core 16 Sq. mm		E.a.	
Sub Total 4.0					
5.0					
		Supply , Installation, testing and commissioning of pre-wired, LED fitting/post top luminaries etc of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, flexible, copper conductor, single core cable with flexible conduits and coupler and earthing etc. as required. Note:- The LED Light fixtures should comply all international standards third party (LM 79 for complete fixture, LM 80 for individual LED). The Manufacturer / Channel Partner of the Manufacturer has to submit 4- Years unconditional free Replacement Guarantee for complete fixture.			
5.1		Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/aluminium pressure die cast powder coated and high U.V. & corrosion resistance with diffuser housed in aluminium casted body with company mark/name 120 to 300 V,Power Factor more than 0.9, THD < 10 %, CCT 3000K to 6500K,Luminaire efficacy> 85 lumens/watt ,LED efficiency 110 lumens/watt.LED driver efficiency >85% CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/Bridgelux make LED used for luminaire. (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)			
		(A) Tube Light with integral / non integral driver			
5.1.1	30	(v) 24 watts, 12" x 12", Surge-2 KV		No	
		(B) Square/ Circular shaped Surface/Recessed Mount Downlight with provision for spring loaded mounting clips complete.IP20			
5.1.2	120	(ii) 8 to 11 Watts		No	
		(F) Spot Light 425 Lumens, Surge-2KV			
5.1.3 (A)	15	Outdoor street light fitting side entry with clear acrylic /plastic / polystyrene cover complete with starter, polyester choke copper wound complete erected with 40/36 watt tube holders. with lead wire and connections. (b) with 2 tube 40 watt.120 cms.		No	
5.1.3 (B)	15	Supply of Fibreglass Platform Step (A Type) Ladder - 6 FT having following specifications : It should have large fully serrated platform 15" wide 20" deep which locks ladder ,Aluminium feet with thick rubber tread, top rail guard to serve as a railing, two pairs of gusset support at the bottom step and All gussets are heavy duty steel. Capacity : 300 lbs. Step Width : 3' Approx. spread : 50" Width : 26.5" Approx. Wt. : 16 Kg Approx. Cube : 8.15"		No	
5.1.3 (C)	10	Supply & fixing decorative Hanging light with glass having cylindrical or square shape having length not less than 10" & width not less 3.5" with holder, lead wire as per required length but not more than 1mm & base plate for fixing the fitting with ceiling.[a] suitable for led lamp		No	
5.2	40	Providing and erecting Approved make Ceiling fan with double ball bearing ISI mark with condenser A.C. 230V.50 c/s.1200 mm. sweep complete, canopy erected on existing hook or clamp with earthing. [Make shall be approved by Engineer in charge]		No	
5.3	10	Supplying & erecting approved make low noise decorative exhaust fan having size 200mm with 1350 RPM with square frame ABS body with inbuilt lowers & square frame.		No	

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SR NO.	QTY	ITEM NAME	PRICE	UQM	AMOUNT
5.4	40	Supplying & erecting fan hook box of 10 mm M.S. round bar bounded to the RCC bars up to 50mm length each side and pierced through a 16 Gauge M.S. box / Heavy Duty PVC box complete erected concealed in Ceiling with necessary finishing.		No	
5.5	40	Providing 2.5mm.thick laminated acrylic sheet to cover the fan hook or Fan box.		No	
5.6	40	Supplying and erecting 19 / 20 mm. nominal bore Medium Class M.S. Pipe down rod erected duly painted for fan complete with proper insulation without leakage and earthing.		Mtr	
Sub Total 5.0					

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SR NO.	QTY	ITEM NAME	PRICE	UQM	AMOUNT
6.0					
		Supply , Installation, testing and commissioning of pre-wired, LED fitting /post top luminaries etc of all typesof external lights, complete with all accessories and tube etc. directly on pole / pole bracket, including connection with 1.5 / 2.5 sq. mm FRLS PVC insulated,3 core flexible, copper conductor, with flexible conduits and coupler and earthing etc. as required.			
6.1		Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 1Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses with company mark/name engraved or embossed 120 to 300 V,Power Factor more than 0.95, THD < 10 %, CCT 3000 K to 5700K, Uniformity ratio >0.45, Luminaire efficacy>100 lumens/watt . LED driver efficiency > 85 %.CREE / OSRAM / PHILIPS Lumileds / NICHIA / SEOUL/ BridgeLux (U.S.A.) make LED used for luminaire. (fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings.The Engineer incharge may select any wattage capacity between the ranges shown.)			
		(C) Post Top Lantern LED fitting comprises of Copper dust finish cast aluminum spigot and spun aluminum canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting driver and accessories wired upto terminal block.IP 65			
6.1.1	10	32-40W		No	
6.2		Supply of approved make GI Pole having following specifications. (A) Suitable for base plate mounting single arm Bracket.			
6.2.1	60	Providing and erecting Approved make street light luminaire with one no suitable for- HPSV / MH lamp complete with control gear and accessories , Single piece Die cast Aluminium housing with two compartments duly stove enameled painted side reflector protective Glass cover, synthetic felt gasket, necessary hardware. The fitting should be suitable for side entry having suitable socket bore for clamping complete erected. (D) With 400 watt SVL. /Metal Halide lamp-catll		No	
6.2.2	25	(2) (A) [F] Overall Length of 8.0 meter, Average thickness : 6mm, Top/Bottom Outside Dia. 76/210mm +/-2.Weight of Pole 39.0 Kg approx. (Burial depth 1000 mm)		E.a.	
6.3	25	Single arm bracket		No	
6.4	25	Providing M-20 /1:2:4 cement concrete foundation & 70 % PCC from bottom including excavation for the pole of size 60 X 60 X 120 cms: Deep in below ground level with plinth of 45 ems x 45 ems(or45 ems dia x 45 ems) high upper ground level with neces,sary curing and finishing In approved manner.		No	
6.5	25	Supplying Water tight M.S.BOX of size 20 X 15 X 15 cms. to erect suitable kitkat fuse / MCB to be. erected on polished wooden board inside the box with hinged! Sliding door with rubber rings and erected on pole with suitable pole clamp, all duly painted with one coat of red oxide and two coats of paints. (Cost of Fuse / MCB shall be taken extra).		No	
Sub Total 6.0					
7.0					
7.1	1	Designing, supplying, installing, commissioning & testing of CCTV IR water proof camera suitable for upto 85 MTR. with control key board, DVR, Hard Disk,cables, UPT transreceivers etc. complete with not less than following specifications. 1. Twent Four numbers of IP Camera with night vision functionality with range up to 30 meters. Camera construction shall be suitable for weather proof outdoor installation. 2. Thirty Two Channel DVR with metal body construction, having software features of motion detect recording. 3. 3.5 inch 8 TB HDD 5 port GIGA Switch 5. 50 inch LED Screen, Keyboard & mouse.		No	
Sub Total 7.0					
8.0					
8.1	5	Providing and erecting approved make split air-conditioning unit consisting of copper condensing unit with fan motor, hermetically sealed rotary compressor with accessories etc. duly connected separately erected evaporating unit and blower motor with its accessories by means of extra supplied proper insulated copper tubing,drain PVC pipes suitable for (cost includes powder coated Stand, Eco Friendly green gas charging, 15A plug top & Remote Control) with necessary core cutting.		E.a.	
Sub Total 8.0					
9.0					

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SR NO.	QTY	ITEM NAME	PRICE	UQM	AMOUNT
9.1		<p>Supplying and erecting, commissioning and testing of Diesel Generating set conforming to IS: 4722:1968 & BS:5514 having continuous rating, 3 phase, 415 volts, 50 cycles A.C. supply comprising of a totally enclosed air/water cooled diesel engine with multi-cylinders developing suitable BHP not less than following capacity at 1500 RPM with 10% overload for one hour in 24 hours with standard accessories like fly wheel, lubricating oil cooler, "A" class governor, heavy duty fuel wheel and lubricating oil filter, oil bath air filler, lubricating oil pressure gauge, end exhaust manifold, standard set of tools with adjustable spanners, screw drivers, cylinder head to cover, joint cylinder head to exhaust, element lube oil filter, 12 / 24 volts electric starting equipment complete with standard heavy duty battery, dynamo, cut-outs, ammeter, necessary wiring, pressure gauge, starter etc and heavy duty Residential type exhaust silencer and vertical hot air duct both logged with asbestos rope, save oil trays, exhaust piping of required length, standard wall/floor mounted fuel with level indicator and piping and drip proof alternator, self excited, self regulated, screen protected, with excitation system, capable of delivering the rated system output at 415 volts, 3 phase, 0.8 PF, 50 Hz, 4 wire, running at 1500 RPM, conforming to IS-4722- 1968 with voltage regulation +/- 5% of rated voltage from no load to full load. Both the engine and alternator fitted on a common fabricated steel base plate with antivibration mounting engine and alternator both connected to each other by flexible flange coupling and with floor/wall mounted control panel box comprising of voltmeter ammeter, selector switches, ACB / MCCB / MCB of adequate capacity, indicator lamps duly wired with HRC fuses. The alternator & control panel shall be connected with provided suitable capacity armoured cable and complete with Acoustic enclosure (canopy) made out of 16 SWG CRCA Sheet, sound absorbing material Rockwool of 64 density & 100 mm thick conforming to IS:8183 / PU Foam of 40 Density - at least 40 mm. The resin bonded rockwool covered from inside the canopy by perforated sheet with 3/4 mm holes, sound level not more than 75 dB at a distance of 1 mtr, as per PVCT norms. Erection, commissioning and satisfactory testing as per requirement with first filling of fuel, oil, etc. with guarantee / Warrantee of complete system for Two years. & with obtaining all necessary certificate from Electrical Inspector. The Capacity and Ratings of DG sets are as below.</p>			
	1	(D) Continuous Rating of 25 KVA ,BHP not less than 32 BHP		E.a.	
		Sub Total 9.0			
		TOTAL AMOUNT :			