



MORBI MUNICIPAL CORPORATION

Request for Proposal (RfP) for Design, Engineering, Procurement and Construction of a Sanitary Landfill Facility (SLF) at Morbi including Comprehensive Operation & Maintenance for a Period of 6 Years

Volume IV: Price Bid

2026

Morbi Municipal Corporation (MRMC)

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Structure of the Bidding Documents

Sr.no.	Volume	Details
1	Volume – I	Instruction to Bidders (ITB)
2	Volume – II	Conditions of Contract
3	Volume – III	Employer's Requirements and Scope of Work
4	Volume – IV	Price Bid (BOQ)
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SECTION 1: PRICE BID**1 Price Bid Format***(To be submitted online on n-procure portal only)*

Name of the work: Request for Proposal (RfP) for Design, Engineering, Procurement and Construction of a Sanitary Landfill Facility (SLF) at Morbi including Comprehensive Operation & Maintenance for a Period of 6 Years

Sr. No.	Work	Bidder's Quote (in INR) (Excluding GST)
1	Part A: Capital Cost Design, Engineering, Supply, Procurement, Construction, installation, testing, commissioning of complete Sanitary Landfill Facility (SLF) Including but not limited to landfill Cell, liner system, bund, roads, storm water drain, green belt, retaining wall, boundary wall, fencing, gate, admin building, fresh water tank, weighbridge cabin, weight bridge foundation, engineering store, leachate collection tank, material inspection shed, vehicle repairing ramp, security cabin, leachate collection well, piezometric wells, mechanical work including weigh bridge & automatic vehicle washing system, electrical work, machinery & vehicles for O&M, furniture, plumbing, firefighting, environment clearance (EC), environment impact assessment (EIA), consent to establish (CTE), consent to operate (CTO) etc., as per the Tender conditions.	
2	Part B: Operation and Maintenance Comprehensive Operation and Maintenance including all activities, services, manpower, equipment, consumables, spares, monitoring, and reporting necessary to ensure continuous, safe, and compliant operation of the SLF in accordance with the Tender conditions, Environmental Clearance, Consents, and Applicable Laws. For Year 1	
3	... Year-2	
4	... Year-3	
5	... Year-4	
6	... Year-5	
7	... Year-6	
8	Total Amount (INR) without GST	

2 Important instructions (Price Bid)

- a) The Bidder shall quote a single consolidated Lump-Sum price for the entire EPC scope covering Design, Engineering, Procurement, Construction, Testing and Commissioning of the SLF. The EPC Lump-Sum Price shall be inclusive of all costs, including but not limited to:
- Surveys, investigations, detailed engineering and drawings
 - Environmental Clearance and all statutory approvals
 - Civil, electrical, mechanical and instrumentation works
 - Supply and installation of liner systems, leachate systems, gas management, roads, buildings and utilities
 - Labour, plant & machinery, temporary works, testing, commissioning
 - Insurance, royalties, duties, fees, and compliance with Applicable Laws
- b) Operation & Maintenance (O&M) for 6 years shall be quoted separately, on a lump-sum / annual basis.
- c) For evaluation purposes, the Employer shall compute a Derived Percentage (% Above / Below / At Par) by comparing the quoted price with the Total Estimated Cost indicated in the BOQ.
- d) The Derived Percentage so calculated by the Employer shall be deemed final, binding and contractually applicable, and shall be treated as equivalent to a percentage-rate tender.
- e) For the purpose of execution, measurement, interim payments, variations, and final settlement, the contract rate for each BOQ item shall be deemed as:
- $\text{Contract Item Rate} = \text{BOQ Estimated Rate} \times (1 \pm \text{Derived Percentage})$
- f) The Derived Percentage shall be uniformly applicable to all BOQ items, including all additions, deletions, substituted items, excess or reduced quantities, and shall remain firm and binding throughout the contract period.
- g) Any variation, extra item, or substituted item shall be valued using the above-derived contract rates or in accordance with the variation provisions of the Contract.
- h) Prices shall be quoted exclusive of GST. Employer shall pay GST as per the government norms and applicable rate from time to time.
- i) No conditional or partial pricing shall be permitted.
- j) The rates and prices shall be quoted entirely in Indian Currency.
- k) Payments to the Contractor shall be released based on the project milestones defined in the Volume-IV of the Tender document.
- l) Payments to the Contractor shall be subject to applicable liquidated damages as defined in the Volume-IV of the Tender document.
- m) The prices shall be entered against each item in the price bid. The cost of work against which Contractor has failed to enter the price shall be deemed to be covered by other prices entered in the price bid.

- n) General direction and descriptions of work and materials are not necessarily repeated or summarized in the Price Bid. References to the relevant sections of the contract documentation shall be made before entering prices against each item in the price bid.

3 Payment Conditions

A. CONDITIONS FOR PAYMENT DURING EPC PHASE

A.1 Basis of Payment

- Payments during the EPC Phase, including the design, engineering, environmental clearance, construction, testing, and commissioning stages, shall be made only on a milestone basis, in accordance with the Payment Milestone Schedule forming part of the Contract.
- Measurement-based running account (RA) bills shall not be applicable during the EPC Phase.
- The Payment stages during EPC phase shall be as following;

Table 1: Payment stages during EPC phase

Project Stage	Payment Stage No.	Linked Project Milestone	Description of Milestone	Payment (% of CAPEX)
Design and Engineering Stage	P-1	A2 to A6	<ul style="list-style-type: none"> - Submission of Project Execution Plan - Completion of Topographical, Geotechnical, and Hydrogeological Investigations and submission of reports thereof - Preparation and submission of Landfill Cell Design Calculations - SLF Layout with landfill cell and supporting infrastructure and Liner System Drawings - Preparation and submission of civil & structure drawings for approval - Preparation and submission of MEP drawings for approval 	1%
Environmental Clearance (EC) Stage	P-2	B2 to B11	<ul style="list-style-type: none"> - Grant of EC 	1%
Construction Stage	P-3	C2 & C3	<ul style="list-style-type: none"> - Site clearing, approach road, and boundary fence - Landfill Cell Excavation 	10%
	P-4	C4	<ul style="list-style-type: none"> - Construction of Retaining wall 	15%
	P-5	C5	<ul style="list-style-type: none"> - Completion of landfill Cell including Composite Base line & Side Liner System Installation, Leachate Collection System & Gas Venting Infrastructure 	30%
	P-6	C6	<ul style="list-style-type: none"> - Completion of Internal Roads, Storm water Drains, Admin building, toilet block, water supply, waste water disposal, water tanks, inspection shed, leachate collection tank, weighbridge cabin, and other Civil Infrastructure. 	25%

	P-7	C7, C8 and C9	<ul style="list-style-type: none"> - Completion of all Mechanical & Electrical Installations including admin building plumbing and electric work - Installation of Ancillary Facilities like Weighbridge, Wheel Wash system, leachate treatment facility, and Admin building furniture - Completion of plantation in green belt area - Testing, Commissioning & Performance Verification - Issuance of Provisional Acceptance Certificate (PAC) 	8%
Procurement of O&M Vehicle and Machinery	P-8	C10	<ul style="list-style-type: none"> - Bulldozer - Front end loader with backhoe - Excavator - Tractor - Trailer - Water tanker - Leachate tanker 	10%
Total				100%

A.2 Eligibility for Payment

- A milestone payment shall become eligible only upon:
 - Full achievement of the corresponding milestone, as defined in the Tender;
 - Submission of all mandatory deliverables and documents linked to that milestone, including drawings, reports, test results, statutory approvals, and compliance statements, as applicable;
 - Certification of milestone completion by the Employer or its authorised representative.
 - Partial achievement of a milestone shall not entitle the Contractor to any proportionate or interim payment unless expressly permitted in writing by the Employer.

A.3 Submission of Invoice

- The Contractor shall submit its invoice only after completion of the relevant milestone, along with all supporting documents prescribed in the Tender conditions.
- Any payment application that is incomplete, incorrect, or not supported by required documentation shall be liable to rejection and shall not be considered a valid payment claim.

A.4 Retention, Deductions, and Recoveries

- All EPC phase payments shall be subject to:
 - Deduction of retention money as specified in the Contract;
 - Adjustment of liquidated damages, or recoverable amounts;

- Recovery of statutory dues or any other sums payable by the Contractor under the Contract.

A.5 No Advance and No Interest

- No advance payment shall be payable
- No interest shall be payable on delayed payments, withheld amounts, or retention money.

A.6 Effect of Payment

- Release of any EPC phase payment shall not be deemed to constitute acceptance of the Works, nor shall it relieve the Contractor of any of its obligations, responsibilities, or liabilities under the Contract.

B. CONDITIONS FOR PAYMENT DURING OPERATION & MAINTENANCE (O&M) PHASE

B.1 Basis of Payment

- Payments during the Operation & Maintenance (O&M) Phase shall be made on a monthly basis, in accordance with the O&M payment provisions specified in the Contract.
- The monthly O&M payment amount shall be derived by equally dividing the annual amount for O&M payment.
- O&M payments shall be subject to compliance with Key Performance Indicators (KPIs) and other operational requirements mentioned in the Tender documents.

B.2 Preconditions for O&M Payments

- Monthly O&M payments shall be released only upon:
 - Continuous operation of the facility in accordance with the Tender conditions;
 - Submission of monthly O&M performance reports, operational logs, and environmental monitoring reports (as applicable) ;
 - Certification by the Employer or its authorised representative confirming satisfactory performance.

B.3 KPI-Linked Deductions

- O&M payments shall be subject to deductions for:
 - Non-achievement of KPIs;
 - Environmental, safety, or statutory non-compliance;
 - Failure to maintain records, logs, or reporting systems.
- The method and quantum of such deductions shall be as specified in the Tender document, and the Employer's determination in this regard shall be final and binding, subject to the dispute resolution mechanism.

B.4 Withholding of O&M Payments

- The Employer shall have the right to withhold, suspend, or reduce O&M payments in the event of:

- Repeated or material non-performance;
- Failure to comply with statutory or regulatory requirements;
- Persistent EHS violations or unsafe operations.
- Such withholding shall not entitle the Contractor to any interest, compensation, or extension of time.

B.5 No Escalation or Additional Payment

- Except as expressly provided in the Tender document, no escalation, variation, or additional payment shall be admissible during the O&M Phase on account of increase in costs, inefficiencies, or operational difficulties.

B.6 No Advance and No Interest

- No advance payment shall be payable
- No interest shall be payable on delayed payments, withheld amounts, or retention money.

B.7 Effect of O&M Payments

- Payment during the O&M Phase shall not relieve the Contractor of its obligations to maintain the facility in accordance with the Contract, nor shall it prejudice the Employer's right to impose penalties, recover damages, or enforce contractual remedies.

4 Liquidated Damages

- Liquidated Damages (LD) shall be levied to compensate the Employer for losses and inconveniences arising from delay, non-performance, or partial performance by the Contractor in meeting contractual obligations.
- Levy of Liquidated Damages shall not relieve the Contractor of its obligation to complete the Works, rectify defects, or comply with performance standards, nor shall it prejudice any other rights or remedies available to the Employer under the Contract.

A. Liquidated Damages for Delay during EPC Phase

A.1 Liquidated Damages for Delay in Achievement of Milestones

- If the Contractor fails to achieve any milestone specified in Appendix-1 (Project Milestones) within the stipulated time, for reasons attributable to the Contractor, the Employer shall be entitled to levy Liquidated Damages.
- The rate of Liquidated Damages for delay shall be as per the following table subject to a maximum cap of 10% (Ten Percent) of the Total EPC Contract Price (i.e. capital cost).
 - Liquidated Damage for delay in completion of milestones during Design and Engineering Stage shall be **Rs. 10,000.00 per week or part thereof**
 - Liquidated Damage for delay in completion of milestones during Environmental Clearance (EC) Stage shall be **Rs. 10,000.00 per week or part thereof**
 - Liquidated Damage for delay in completion of milestone during Construction Stage shall be **Rs. 25,000.00 per week or part thereof**
- Liquidated Damages shall be calculated from the day immediately following the scheduled milestone completion date up to the date the milestone is actually achieved and certified by the Employer.

A.2 Liquidated Damages for Delay in Final Completion of Construction (whole work)

- In case of delay in achieving Completion of Construction, Liquidated Damages shall be levied at the rate **0.5% (Zero Point Five Percent) of the Total EPC Contract Price (i.e. Capital cost) per week of delay, or part thereof**, subject to a maximum cap of 10% (Ten Percent) of the Total EPC Contract Price.
- Delay beyond 90 (Ninety) days from the scheduled date of PAC issuance shall be treated as material breach of contract, entitling the Employer to invoke additional contractual remedies, including termination, encashment of Performance Security, and blacklisting as per applicable rules.
- The “Liquidated Damages for Delay in Final Completion of Construction (whole work)” shall be over and above the “Liquidated Damages for Delay in achievement of Milestones”

A.3. Liquidated Damages for Delay in obtaining Environment Clearance

- Delay in obtaining Environmental Clearance (EC), shall attract Liquidated Damages if such delay is attributable to deficiencies, non-compliance, or inaction of the Contractor or its appointed consultants. This LD shall applicable be over and above the Liquidated Damages for Delay in Achievement of Milestones.

- ii. Liquidated Damages for such delays shall be levied at **Rs. 50,000.00 per week of delay**, subject to a maximum cap of 10% (Ten Percent) of the Total EPC Contract Price (i.e. capital cost).
- iii. No Liquidated Damages shall be levied where delay is demonstrably attributable solely to statutory authorities, provided the Contractor has complied fully and timely with all submission and follow-up requirements.

Note: The cumulative amount of LD during EPC phase, shall be subjected to maximum cap of 10% (Ten Percent) of the Total EPC Contract Price (i.e. capital cost).

B. Performance-Linked Liquidated Damages (during O&M period)

- i. During the six (6) year O&M period, failure to meet Performance Standards and KPIs specified in Section-6 of the Vol-3 of the Tender document, shall attract Liquidated Damages and/or deductions from monthly O&M payments.
- ii. The Employer may levy deductions **Rs.10,000.00 per instance up to the maximum limit of 10% of the Monthly O&M Payment** for each month of non-compliance.
- iii. Notwithstanding the condition of maximum limit of 10% of the Monthly O&M Payment for Performance-Linked LD, the Employer shall be authorized to levy higher deductions or suspension of payment in case of serious or repeated violations.

C. Environmental and Safety Non-Compliance

- i. Any violation of Environmental Clearance conditions, SWM Rules, 2016, or directions of regulatory authorities attributable to the Contractor shall attract Liquidated Damages in addition to any statutory penalties imposed by authorities.
- ii. In case of incidents causing environmental damage, pollution, or serious safety hazards, the Employer may levy Liquidated Damages, recover costs of remedial measures, suspend operations, and/or terminate the Contract for default.

D. Recovery and Adjustment of Liquidated Damages

- i. Liquidated Damages shall be recoverable by the Employer through adjustment against milestone payments, deduction from O&M payments, encashment of Performance Security, or any other lawful means available under the Contract.
- ii. The Employer's determination of Liquidated Damages shall be final and binding, subject to the dispute resolution mechanism provided in the Contract.

E. Force Majeure and Exclusions

- i. No Liquidated Damages shall be levied for delays or non-performance resulting from events qualifying as Force Majeure, provided the Contractor complies with the notice and mitigation requirements stipulated in the Conditions of Contract.

F. Cumulative Effect

- i. Liquidated Damages under this Appendix shall be cumulative across phases but shall not exceed the maximum caps specified herein.
- ii. Levy of Liquidated Damages shall not limit the Employer's right to claim actual damages, invoke termination, or exercise any other contractual or statutory remedy in cases of fraud, gross negligence, or willful default.

SECTION 2: BILL OF QUANTITIES (BOQ)

5 Preamble to BOQ

- a. The Schedule of Quantities (BOQ) forms an integral part of the tender documents and has been prepared to define the indicative scope of work, facilitate bid preparation, and establish the basis for contract rate derivation, valuation of variations, and contract administration under the EPC Contract.
- b. The BOQ indicates item-wise descriptions, units of measurement, quantities, estimated rates, and estimated amounts based on preliminary designs, site investigations, and applicable standards. The quantities shown are approximate and may increase or decrease during execution without affecting the validity of the Contract.
- c. The BOQ is not a schedule for direct pricing by the Bidder. Bidders shall not quote, alter, substitute, or attach any item-wise rate, amount, or condition in the BOQ. Any such attempt shall render the bid liable to rejection.
- d. The Bidder shall quote only a single consolidated price in INR in the Price Bid (Volume–IV), covering the entire scope of work as described in the tender documents, irrespective of the quantities indicated in the BOQ.
- e. For the purposes of evaluation, execution, measurement, variations, extra items, substituted items, and final settlement, the lump sum price quoted by the Bidder in the price bid shall be deemed to correspond to a uniform percentage (% Above / Below / At Par) over the Total Estimated Cost of Works indicated in the BOQ, as calculated by the Employer.
- f. The Derived Percentage shall apply uniformly to all BOQ items, including but not limited to excess or reduced quantities, additions, deletions, substituted items, and any variations arising during execution.
- g. Any item of work not expressly included in the BOQ but required for completion of the Works in accordance with the Contract shall be deemed to be included in the quoted EPC price, unless treated as a variation under the provisions of the Contract.
- h. All works shall be executed strictly in accordance with the Scope of Work, Technical Specifications, Drawings, applicable standards, statutory requirements, and directions of the Engineer-in-Charge.
- i. The BOQ shall be read in conjunction with the Instructions to Bidders (ITB), General Conditions of Contract (GCC), Special Conditions of Contract (SCC), Employer's Requirements, Scope of Work, Technical Specifications, Drawings, and Price Bid.

Name of Work: Request for Proposal (RfP) for Design, Engineering, Procurement and Construction of a Sanitary Landfill Facility (SLF) at Morbi including Comprehensive Operation & Maintenance for a Period of 6 Years.

Recapitulation Sheet

Par A: Capital Expenditure (CAPEX)				
Schedule	Schedule Name	MoC	Size	Amount (INR)
A01	Landfill Cell including Excavation, Filling, Liner system, Bund, Roads, Storm Water Drain Green Belt	RCC	As per drawing	14,90,52,259
A02	Retaning Wall, Boundary Wall, Fencing & Gate	RCC	As per drawing	3,76,27,909
A03	Admin Building	RCC	21.8M x 5M	28,34,784
A04	Fresh Water UG Tank	RCC	5.8 M x 5.8 M	17,38,807
A05	Weight Bridge Cabin	RCC	3.46 M x 3.46M	5,05,477
A06	Weight Bridge Foundation	RCC	32M x 3.8M	10,00,239
A07	Engineering Store	RCC + STEEL	10.3M x 9.8M	23,91,801
A08	Leachat Collection Tank	RCC	10.8M x 5.8M	20,89,079
A09	Material Inspection Shed	RCC + PEB	16.9M x 26M	58,06,820
A10	Vehical Repairing Ramp	RCC	26.5M x 3.2M	9,41,945
A11	Security Cabin	RCC	3.46 M x 3.46M	5,05,477
A12	Leachat Collection Well	RCC	6M dia x 12M d	8,31,149
A13	Pieziometric Wells (4 Nos.)	RCC	30M deep each	12,00,000
A14	Mechanical Work including weigh bridge & Automatic Vehcile Washing System	-	-	63,00,409
A15	Electrical Work	-	-	83,39,874
A16	Machinery & Vehicles for O&M	-	-	2,38,34,000
A17	Miscellaneous (Admin building furniture, plumbing, firefighting, Design & Engineering Consutant, EC/ EIA Consultant)	-	-	59,55,320
Sub-total A : Estimated Capital Cost without GST				25,09,55,349

Part B: Operation and Maintenance Cost (OPEX)		
Sn.	Particulars	Amount (INR)
B1	First year	1,08,71,818
B2	Second Year	1,10,64,018
B3	Third Year	1,14,54,829
B4	Forth Year	1,20,76,064
B5	Fifth Year	1,25,06,933
B6	Sixth Year	1,29,59,345
Sub-total B : Estimated O&M Cost without GST		7,09,33,007
Total Estimated Project cost (Capex + Opex) (A+B)		32,18,88,356

SCHEDULE A01: LANDFILL CELL + ROAD + SWD + LEACHATE COLLECTION NETWORK

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A1.1 Construction of Landfill Cell including Excavation, Filling, Base & Side Liner, and Bund						
A1.1.1	2.63	Cleaning and Clearing of the site of landfill area (Cell 1) devoid of shrubs and other vegetation, debris, biomineral materials, msw waste etc complete with all labour and manpower, tools and plants etc and disposal of the waste at designated location within 5 km radius from the site or any lead at whichever location as directed by engineer in charge and to the satisfaction of engineer incharge	Hectare	111229.58	112341.88	2,95,829.87
A1.1.2		Excavation in earthwork and foundations in below depths for foundations of structures and retaining wall, landfill side slopes and base, using JCB Earth movers and other required machinery, tools and plants, labour etc including cutting all sorts of soils, hard murrum including rocky strata (with controlled blasting or without blasting as per statutory authority permissions) (if any), as per line, level and dimensions as shown in the drawings, including ramming, trimming, preparation of base and side slopes, foundations as required in true shape, line and level, sorting out and stacking of the useful material, utilizing all the material for filling required for area grading in base and sides of landfill cell and surface dressing upto the required levels and disposal of excavated stuff within 500 m lead as directed by engineer in-charge and to the satisfaction of engineer in charge.				
A1.1.2 (a)	2946.06	Excavation from 0 - 1.5 m	Cum	403.31	407.34	12,00,048.09
A1.1.2 (b)	7855.71	Excavation from 1.5 - 3.0 m	Cum	426.86	431.13	33,86,832.26
A1.1.2 (c)	10025.61	Excavation from 3.0 - 5.0 m	Cum	450.40	454.90	45,60,649.99
A1.1.2 (d)	41885.49	Excavation for additional depth more than 5.0 m	Cum	166.97	168.64	70,63,569.04
A1.1.3	35556.00	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations and consolidating the base of landfill site (compacted natural base layer) etc. in layers not exceeding 20 cm. in depth consolidating each disposed layer by ramming and watering. the bottom earth layer will be flat rolled with heavy earth movers / flat rollers including sprinkling of water for making a uniform surface base layer. The item is a consolidated inclusive of all material labour, machinery, surface dressing, watering, ramming and levelling etc complete with disposing of surplus earth work within a vicinity of 500 m as directed by engineer in-charge and to the satisfaction of engineer in charge. 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 upto any lead and site grading and dressing to prepare a smooth surface for application of liners on the side slope.	Cum	263.56	266.20	94,65,007.20

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A1.1.4		Providing and laying clayey soil / ammended soil of required thickness for sides and base of landfill site as clay layer , using available soil from excavation of the base of landfill site as well as from excavated borrow pits brought from outside (in case of shortage) and mixing with sodium bentonite in proportion of 10% bentonite with soil (weight basis) to achieve the desired permeability of 1 x 10 ⁻⁷ cm/sec as per CPCB norms, at the bottom of landfill and side slopes in layers of 150 mm thickness - three layers with ramming and consolidation using flat rollers including all material, labour, tools & plants, equipments and machinery etc. The clay layer will be compacted using heavy earth movers / flat rollers including sprinkling of water to achieve 95% proctor density and achieving a permeability of 1 x 10 ⁻⁷ cm/sec. The filling and compaction will be done inclusive of all labour, machinery, watering, ramming and consolidating etc with disposing of surplus clay / ammended soil within a vicinity of 1 km as per drawings and as directed by engineer in-charge.				
A1.1.4 (a)	4711.56	600 mm thickness of clayer layer with bentonite at base of landfill cell	cu.m	2168.79	2190.48	1,03,20,577.95
A1.1.4 (b)	2599.90	300 mm thickness of clayer layer with bentonite at sides of landfill cell	cu.m	2168.79	2190.48	56,95,038.76
A1.1.5		Procurement, Supply, Laying, Jointing and Installation Geo-synthetic Clay Liner (GCL) of 6 - 7 mm thickness along the slopes and flat base surfaces of the landfill cell, conforming to the Specifications, Drawings and directions of the Engineer-in-charge including laying and jointing, anchoring of Geo-synthetic Clay Liner (GCL) at the ground level in the bund as specified in the drawing etc complete with all lead and lifts including cost of Geo-synthetic Clay Liner (GCL), transportation to site, installation with all labour, materials, tools and plants, jointing materials, all field lapping, Granule bonding, jointing, excavation for the trenches for anchoring, refilling & compaction of the same, all necessary field / laboratory tests, as per Standards, Specifications and as directed by the Engineer-in Charge and to the satisfaction of engineer in charge and as per standard specifications. The physical, chemical and mechanical properties of Geo-synthetic Clay Liner (GCL), to be procured shall meet / exceed the Specifications of the Geo-synthetic Research Institute (GRI). The Specifications of GRI / GCL 3, Revision 4, dated 28.03.2016.				
A1.1.5 (a)	7852.60	GCL Liner 6 - 7 mm thickness at base of landfill cell (including 10% addition for overlaps)	sq.m	278.30	281.08	22,07,208.81
A1.1.5 (b)	10673.68	GCL Liner 6 - 7 mm thickness along all side slopes of landfill cell upto anchor trench in embankment (including 10% addition for overlaps)	sq.m	278.30	281.08	30,00,156.89
A1.1.6		Procurement, Supply, Laying, Jointing and Installation of 1500 micron (1.5 mm thick) virgin quality HDPE liner (both sides textured surface) applied on the compacted clay layer (sides and base of landfill, top cover layers) and anchored in the soil and on the concrete retaining wall as per drawings. 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 of 150 mm and the machine welding shall produce two seams. The lining material shall be of highest quality 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% 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 as per specified IS standards. All the individual steels shall be tested accordingly. The measurement shall be taken of the covered area only and no overlaps will be considered. The entire item includes all materials, labour tools and plants, materials and equipments, jointing of the HDPE sheets, testing for leakages, certificate of test results, necessary use of bonding chemicals etc complete with all materials, labour, tools, and equipment, as per drawings, technical specifications as directed by engineer in-charge and to the satisfaction of engineer in charge. The physical, chemical and mechanical properties of 1.5 mm. thick HDPE Geomembrane, to be procured shall meet / exceed the Specifications of the Geosynthetic Research Institute (GRI). The Specifications of GRI / GM 13, Revision 14, dated 06.01.2016.				

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A1.1.6 (a)	7852.60	HDPE Liner 1.5 mm thickness (both sides textured) at base of landfill cell (including 10% addition for overlaps)	sq.m	478.50	483.29	37,95,083.06
A1.1.6 (b)	10673.68	HDPE Liner 1.5 mm thickness (both sides textured) along all side slopes of landfill cell upto anchor trench in embankment (including 10% addition for overlaps)	sq.m	478.50	483.29	51,58,480.94
A1.1.7		Providing and laying needle punched and mechanically bonded non-woven geotextile 1200 GSM of type II indigenously manufactured from high quality Propylene staple fibres on the prepared subgrade above drainage media including cost of non-woven geotextile 1200 GSM, labour, all field lapping, thermal bonding, jointing, excavation for the trenches for anchoring, refilling & compaction of the same, all necessary field / laboratory tests, as per Standards, Specifications etc complete with all materials, labour, tools, and equipment and as directed by the Engineer-in Charge and to the satisfaction of engineer in charge. The physical, chemical and mechanical properties of non-woven geotextile 400 GSM, to be procured shall meet / exceed the Specifications of the Geo-synthetic Research Institute (GRI). The Specifications of GRI / GT 13 (b), Revision 1, dated 19.12.2012.				
A1.1.7 (a)	7852.60	1200 GSM Geo textile above HDPE liner and below the drainage layer (including 10% addition for overlaps) at Base of landfill site	sq.m	335.50	338.86	26,60,932.04
A1.1.7 (b)	7852.60	1200 GSM Geo textile above Drainage Layer of Sand (including 10% addition for overlaps) at Base of landfill site	sq.m	335.50	338.86	26,60,932.04
A1.1.7 (c)	10673.68	1200 GSM Geo textile along side slopes over the liner upto anchor rench in the embankment (including 10% addition for overlaps)	sq.m	335.50	338.86	36,16,881.90
A1.1.8	2591.36	Supply, Providing and Laying 300mm thick Water Drainage Layer consisting of well graded course sand brought from outside over Geotextile 1200 GSM. The spreading and light compaction can be achieved by means of power roller to required finished thicknesses at the bottom of landfill base including supply, transporation to site of works, loading and unloading of the materials, all labour, materials required for placing and spreading, light compaction with equipments and machinery, necessary testing, fuel oil, incidental and other operational charges etc. as per specifications in bid documents complete as directed by engineer in charge and to the satisfaction of engineer in charge. Add in sand layer 10% extra for covering the leachate trenches	cu.m	606.53	612.60	15,87,465.92
A1.1.9	2355.78	Supply, Providing and Laying 100mm thick stone aggregate (6 - 10 mm) (Grit) brought from outside over Non Woven Geotextile 1200 GSM above the drainage sand drainage layer. The spreading and light compaction can be achieved by means of power roller to required finished thicknesses in the slopes as well as top of landfill including supply, transporation to site of works, loading and unloading of the materials, all labour, materials required for placing and spreading, compacting with equipments and machinery, necessary testing, fuel oil, incidental and other operational charges etc.as per specifications in bid documents complete as directed by engineer in charge and to the satisfaction of engineer in charge.	cu.m	517.07	522.24	12,30,282.55
A1.1.10	10673.68	Providing, supplying, and laying well-burnt clay bricks for brick pitching (Uncoursed Rubble Masonry with hard stone of approved quality in foundations and plinth in Cement Mortar 1:6 (1- cement : 6-coarse sand including levelling up etc. complete + Extra over Item 7.6 for super structure above plinth level upto floor two level) on side slopes over prepared and approved slope or horizontal surface, including dressing of slope, leveling, arranging bricks with broader faces flat, filling voids/interstices with sand or stone grit, compacting and finishing to the required lines and levels, and completing the work with all materials, labour, tools, and equipment, as per drawings, technical specifications, and directions of the Engineer-in-Charge and to the satisfaction of engineer in charge	Cum	2931.76	2961.08	3,16,05,608.91
A1.1.11	7025.76	Providing and filling large rubbles, boulders including hand packing and filling interstices with quarry spalls behind abutments and in bund construction and between returns including all materials brought from outside as approved by engineer in charge, including all tools and plants, material and equipments, labour etc complete to the satisfaction of engineer in charge	cu.m	1083.28	1094.11	76,86,954.28

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A1.2. Construction of RCC Road including internal road and approach road; and Storm Water Drainage on periphery of Landfill cell; and Green belt						
A1.2.1	2999.88	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 10 T power roller, complete as per requirements including all tools and plants, equipments, material and labour etc complete as directed by engineer in charge and to the satisfaction of engineer in charge	Cum	2800.00	2828.00	84,83,660.64
A1.2.2	821.97	Providing, laying, spreading and compacting Wet Mix Macadam (WMM) of approved crushed stone aggregates , graded as per MoRTH Specification Clause 406, mixed with water at Optimum Moisture Content in a Wet Mix Plant, including loading, transportation, unloading, laying with paver / grader, leveling, watering, rolling with suitable vibratory roller to achieve the required density, finished to true line, level and camber, complete as per drawings and directions of Engineer-in-Charge and to the satisfaction of engineer in charge, including all materials, labour, machinery and equipment, but excluding cost of bitumen, if any.	Cum	3500.00	3535.00	29,05,663.95
A1.2.3	10832.90	Procurement, Supply, Laying, Jointing and Installation of 1500 micron (1.5 mm thick) virgin quality HDPE liner (both sides textured surface) below the road layers and anchored in the soil and on the concrete retaining wall as per drawings. It shall be sealed and packed from both ends with the existing layers by employing combiweb fusion process. The over lapping between two HDPE sheets shall be minimum of 150 mm and the machine welding shall produce two seams. The lining material shall be of highest quality 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% 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 as per specified IS standards. All the individual sheets shall be tested accordingly. The measurement shall be taken of the covered area only and no overlaps will be considered. The entire item includes all materials, labour tools and plants, materials and equipments, jointing of the HDPE sheets, testing for leakages, certificate of test results, necessary use of bonding chemicals etc complete with all materials, labour, tools, and equipment, as per drawings, technical specifications as directed by engineer in-charge and to the satisfaction of engineer in charge	sq.m	478.50	483.29	52,35,432.25
A1.2.4	1704.00	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length, 30cm height and 15cm thick of M200 grade concrete as per approved design and including excavation for fixing in proper line and level, filling the joint with C:M 1:3 (1 cement:3 fine sand) etc complete.	Rmt	396.90	400.87	6,83,082.48
A1.2.5	61.99	Providing and laying plain cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth of the road construction and storm water drainage	Cum	3064.60	3095.25	1,91,872.94
A1.2.6	2342.34	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work for road construction (pavement) and the storm water drainage , 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	5202.05	5254.07	1,23,06,808.24

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A1.2.7	2951.88	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	SMT	312.56	315.69	9,31,879.00
A1.2.8	56120.20	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	KG	76.52	77.29	43,37,530.26
A1.2.9	720.00	Providing supply and laying of Paver block M200 Grade 60mm Thick on side of road	SMT	330.10	333.40	2,40,048.00
A1.2.10	7311.46	Earthwork for embankment including breaking clods, dressing with all lead and lift (excluding watering and consolidation)(A) from borrow pits within land width	Cum	108.16	109.24	7,98,704.38
A1.2.11	1080.00	Green Belt development including planting of trees @ 1500 Trees per hectre in the green belt area as per CPCB guidelines as per local site conditions etc complete as directed by engineer in charge and to the satisfaction of engineer in charge.	Nos	350.00	353.50	3,81,780.00
A1.2.12	3600.00	Filling in foundation and plinth / ground level with selected vegetative soil in layers of 20cm. Thickness and in total of 500 mm thickness including watering, ramming and consolidating etc. complete as directed by engineer in charge and to the satisfaction of engineer in charge	Cum	298.79	301.78	10,86,408.00
A1.3. LEACHATE COLLECTION NETWORK						
A1.3.1	467.04	Procurement, supply, laying, jointing, testing and installation of 160 mm diameter lateral leachate collection pipes made of virgin quality HDPE (as specified in drawings), conforming to relevant IS standards / ASTM standards, complete in all respects. The pipes shall be perforated / slotted as specified and suitable for leachate collection, with adequate strength to withstand soil load, waste load and operational conditions of the landfill. The pipe material shall be entirely free from recycled content, fillers, plasticizers or any deleterious substances. The pipes shall be laid over the prepared and approved drainage layer (gravel / aggregate layer) above the HDPE geomembrane liner, true to line, level and gradient as shown in the drawings, and all precautions shall be taken to avoid damage to the HDPE liner during laying, handling and installation. Jointing of pipes shall be carried out using couplers / rubber ring joints / solvent cement joints / butt fusion joints (as applicable) ensuring watertight and leak-proof connections. The lateral pipes shall be properly connected to the main leachate collection header pipes, manholes or sumps as per drawings and technical specifications and ends of pipes shall be suitably sealed or capped where required. The work shall include all materials, labour, tools, tackles, plants, machinery, transportation, handling, cutting, jointing, testing, alignment, temporary supports and protection works complete as per drawings, technical specifications and directions of the Engineer-in-Charge. Testing of the laid pipes for alignment, slope, joint integrity and functionality shall be carried out as directed and any defective material or workmanship noticed during inspection or testing shall be rectified or replaced at no extra cost. The measurement shall be taken in running metres along the centerline of the pipe actually laid measured on plan and no extra payment shall be made for overlaps, joints, fittings, wastage or cutting. The entire item shall be executed strictly in accordance with the approved drawings, technical specifications and relevant IS codes and to the complete satisfaction of the Engineer-in-Charge	RMT	4808.00	4856.08	22,67,983.61

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A1.3.2	133.92	Procurement, supply, laying, jointing, testing and installation of 315/350 mm diameter header leachate collection pipes made of virgin quality HDPE (as specified in drawings), conforming to relevant IS standards / ASTM standards, complete in all respects. The pipes shall be perforated / slotted as specified and suitable for leachate collection, with adequate strength to withstand soil load, waste load and operational conditions of the landfill. The pipe material shall be entirely free from recycled content, fillers, plasticizers or any deleterious substances. The pipes shall be laid over the prepared and approved drainage layer (gravel / aggregate layer) above the HDPE geomembrane liner, true to line, level and gradient as shown in the drawings, and all precautions shall be taken to avoid damage to the HDPE liner during laying, handling and installation. Jointing of pipes shall be carried out using couplers / rubber ring joints / solvent cement joints / butt fusion joints (as applicable) ensuring watertight and leak-proof connections. The header pipes shall be properly connected to lateral leachate collection pipes, manholes or leachate collection sumps as per drawings and technical specifications and ends of pipes shall be suitably sealed or capped where required. The work shall include all materials, labour, tools, tackles, plants, machinery, transportation, handling, cutting, jointing, testing, alignment, temporary supports and protection works complete as per drawings, technical specifications and directions of the Engineer-in-Charge. Testing of the laid pipes for alignment, slope, joint integrity and functionality shall be carried out as directed and any defective material or workmanship noticed during inspection or testing shall be rectified or replaced at no extra cost. The measurement shall be taken in running metres along the centerline of the pipe actually laid measured on plan and no extra payment shall be made for overlaps, joints, fittings, wastage or cutting. The entire item shall be executed strictly in accordance with the approved drawings, technical specifications and relevant IS codes and to the complete satisfaction of the Engineer-in-Charge.	RMT	14815.00	14963.15	20,03,865.05
					TOTAL	14,90,52,259.30
					GST 18%	2,68,29,406.67
					GRAND TOTAL	17,58,81,665.98

SCHEDULE A02: RETAINING WALL, BOUNDARY WALL, FENCING & ROLLING GATE

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A2.1 FOR COMPOUND WALL, BOUNDARY WALL & FENCING						
A2.1.1	3387.96	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.(B) Dense or Hard soil	Cum	269.87	272.57	923457.12
A2.1.2	1103.81	Excavation for foundation 1.5 m to 3 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(B) Dense or Hard soil	Cum	292.18	295.10	325733.24
A2.1.3	3013.16	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	135.56	136.92	412562.12
A2.1.4	312.10	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	966027.45
A2.1.5	2826.01	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete 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 450 kg)	Cum	5202.05	5254.07	14848041.36
A2.1.6	11598.49	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.	Sq.Mt.	178.61	180.40	2092367.24
A2.1.7	207246.12	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	16018052.24
A2.1.8	635.76	RCC PRECAST/PRESTRESSED BOUNDARY WALL	RMT	2068.00	2088.68	1327899.20
A2.1.9	635.76	FENCING	RMT	680.00	686.80	436639.97
A2.2. ROLLING GATE						
A2.2.1	1.25	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.(B) Dense or Hard soil	Cum	269.87	272.57	340.01
A2.2.2	1.25	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	3861.02
A2.2.3	2070.30	Structural steel work (Confirming to IS 4923-1997) riveted, bolted or welded in builtup for all type sections, in framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete as per the structural designs and directions of Engineer in charge. Column (122 x 61 x 3.6mm)	KG	130.52	131.83	272928.17
				TOTAL		3,76,27,909.14
				GST		67,73,023.65

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
GRAND TOTAL						4,44,00,932.79

SCHEDULE A03 - ADMIN BUILDING

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A3.1	193.74	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.(B) Dense or Hard soil	Cum	269.87	272.57	52806.38
A3.2	154.33	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	135.56	136.92	21131.26
A3.3	39.40	Add extra for Disposing off the excavated stuff of above items for lead of (E) 400 to 500 m	Cum	128.00	129.28	5093.93
A3.4	119.90	LDPE SHEET	SMT	180.00	181.80	21797.82
A3.5	17.24	Providing and laying cement concrete 1:4:8 (1-Cement : 4- coarse sand : 8- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	2742.27	2769.69	47737.08
A3.6	95.54	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete 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 450 kg)	Cum	5202.05	5254.07	501976.05
A3.7	592.57	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	Sq.Mt.	312.56	315.69	187068.78
A3.8	10842.75	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	838035.88
A3.9	144.69	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	Cum	4203.06	4245.09	614226.53
A3.10	146.21	WATER PROOFING ON TERRACE (ACRELLIC BASED 2 COAT BEFOR CHINA MOZAIC)	SQ MT	700.00	707.00	103371.89
A3.11	85.80	Providing and laying polished Kota stone slab flooring over 20mm (Average) thick base of cement mortar 1:6 (1-cement: 6-coarse sand) or L.M. 1:1.5 laid over and jointed with grey cement slurry including rubbing and polishing etc. complete. (B) 30 mm thick.	Sq.Mt.	1069.98	1080.68	92722.35
A3.12	38.86	DOOR, WINDOW ALLUMINUM FRAME	Sq.Mt.	5700.00	5757.00	223734.30
A3.13	397.25	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	91565.78
A3.14	397.25	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	Sq.Mt.	83.53	84.37	33515.86
				TOTAL		28,34,783.89
				GST		5,10,261.10

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
			GRAND TOTAL			33,45,044.99
WITHOUT PLUMBING WORK						

SCHEDULE A04 - FERSH WATER UG TANK

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A4.1	95.30	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.(B) Dense or Hard soil	Cum	269.87	272.57	25977.02
A4.2	89.81	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mmnominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	277993.07
A4.3	68.09	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement conctere 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 450 kg)	Cum	5202.05	5254.07	357730.99
A4.4	9.24	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.	Sq.Mt.	178.61	180.40	1666.90
A4.5	248.81	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.	Sq.Mt.	244.76	247.21	61507.75
A4.6	8160.89	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	630755.01
A4.7	111.10	Finishing wall with water proofing cement paint of on wall surface (two coat) to give an approved brand and manufacture and of required shape even shaped after thoroughly brushing the surface to remove all the dirt and remains of loose powered materials.	per bag of 50 kg of cement	60.20	60.80	6754.88
A4.8	418.00	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	96349.00
A4.9	15	Apply and supply of rungs in steps	NOS	450.00	454.50	6817.50

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A4.10	30	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 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	Q	9018.30	9108.48	273254.40
				TOTAL		17,38,806.52
				GST		3,12,985.17
				GRAND TOTAL		20,51,791.69

SCHEDULE A05 - WEIGH BRIDGE CABIN

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A5.1	36.77	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.(B) Dense or Hard soil	Cum	269.87	272.57	10021.46
A5.2	32.52	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	135.56	136.92	4452.44
A5.3	11.60	Add extra for Disposing off the excavated stuff of above items for lead of (E) 400 to 500 m	Cum	128.00	129.28	1499.82
A5.4	3.38	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 8-10 T power roller, complete as per requirements.	Cum	2800.00	2828.00	9553.67
A5.5	10.80	LDPE SHEET	SMT	180.00	181.80	1963.44
A5.6	9.22	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	28525.83
A5.7	16.51	Providing and laying in position Ready Mixed M-250 grade concrete for reinforced cement concrete 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 450 kg)	Cum	5011.95	5062.07	83571.84
A5.8	113.63	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	Sq.Mt.	312.56	315.69	35873.31
A5.9	1834.96	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	141823.81

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A5.10	13.93	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	Cum	4203.06	4245.09	59135.26
A5.11	18.16	WATER PROOFING ON TERRACE (ACRELLIC BASED 2 COAT BEFOR CHINA MOZAIC)	SQ MT	700.00	707.00	12836.30
A5.12	9.18	DOOR,WINDOW ALLUMINUM FRAME	Sq.Mt.	5700.00	5757.00	52849.26
A5.13	47.50	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	10949.73
A5.14	64.40	Providing 20 mm thick double coat mala cement plaster on interior brick / concrete work for plastering comprising of base coat of 12 mm thick cement plaster in cement mortar (1Cement : 4 coarse sand) in rough finishing and 8 mm thick topcoat of cement mortar 1:2 (1 Cement : 2 Coarse sand) finished with trowel including scaffolding curing etc. complete.	Sq.Mt.	281.14	283.95	18286.46
A5.15	134.29	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	Sq.Mt.	83.53	84.37	11329.66
A5.16	3	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 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	Q	9018.30	9108.48	22804.72
				TOTAL		5,05,477.01
				GST		90,985.86
				GRAND TOTAL		5,96,462.87

SCHEDULE A06 - WEIGH BRIDGE FOUNDATION

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A6.1	184.82	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.(B) Dense or Hard soil	Cum	269.87	272.57	50375.52
A6.2	121.94	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	135.56	136.92	16695.97
A6.3	62.88	Add extra for Disposing off the excavated stuff of above items for lead of (E) 400 to 500 m	Cum	128.00	129.28	8128.78
A6.4	40.00	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 8-10 T power roller, complete as per requirements.	Cum	2800.00	2828.00	113108.82
A6.5	13.54	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	41914.97
A6.6	76.43	Providing and laying in position Ready Mixed M-250 grade concrete for reinforced cement concrete 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 450 kg)	Cum	5011.95	5062.07	386908.95
A6.7	36.37	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.	Sq.Mt.	178.61	180.40	6560.43
A6.8	152.93	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.	Sq.Mt.	244.76	247.21	37805.34
A6.9	7.43	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.	Sq.Mt.	312.56	315.69	2346.47
A6.10	4031.69	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	311609.14

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A6.11	19.06	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	4393.52
A6.12	19.06	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	Sq.Mt.	83.53	84.37	1608.16
A6.13	2.06	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 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	Q	9018.30	9108.48	18782.55
				TOTAL		10,00,238.62
				GST		1,80,042.95
				GRAND TOTAL		11,80,281.57

SCHEDULE A07 - ENGINEERING STORE

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A7.1	111.54	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.(B) Dense or Hard soil	Cum	269.87	272.57	30401.34
A7.2	69.56	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.(B) Dense or Hard soil	Cum	292.18	295.10	20528.34
A7.3	135.91	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	135.56	136.92	18609.24
A7.4	45.19	Add extra for Disposing off the excavated stuff of above items for lead of (E) 400 to 500 m	Cum	128.00	129.28	5841.74
A7.5	27.58	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 8-10 T power roller, complete as per requirements.	Cum	2800.00	2828.00	78009.23
A7.6	119.93	LDPE SHEET	SMT	180.00	181.80	21803.82
A7.7	15.09	Providing and laying cement concrete 1:4:8 (1-Cement : 4- coarse sand : 8- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	2742.27	2769.69	41783.41
A7.8	60.49	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concenterwork , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work intransit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cementconcrete 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	5202.05	5254.07	317807.32
A7.9	145.15	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.	Sq.Mt.	178.61	180.40	26185.04
A7.10	0.00	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.	Sq.Mt.	312.56	315.69	0.00
A7.11	4152.83	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	320972.25

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A7.12	18.15	Providing and filling polysulphide sealant of approved make in construction/contraction joints of size 5 mm wide x 35 mm deep, including joint cleaning, primer application, and finishing as per manufacturer's specifications.all complete as per direction of Engineer in Charge	RMT	50.00	50.50	916.58
A7.13	12.39	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	Cum	4203.06	4245.09	52609.20
A7.14	73.44	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	16929.03
A7.15	73.44	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	Sq.Mt.	83.53	84.37	6196.54
A7.16	241.78	Providing and fixing M.S. round holding down or anchor bolts with nuts and washer plates complete.	KG	55.05	55.60	13442.85
A7.17	7473.36	Structural steel work (Confirming to IS 4923-1997) riveted,bolted or welded in builtup for all type sections, in framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete as per the structural designs and directions of Engineer in charge.Column (122 x 61 x 3.6mm)	KG	130.52	131.83	985212.44
A7.18	14.40	Rolling shutters having width Above 3.5 Mt.	SMT	2514.41	2539.55	36569.52
A7.19	336.00	Providing corrugated G.I. sheet of class-3 roofing fixed with glavanished iron J or L Hooks, Bolts and nuts 8mm diameterwith bitumen and G.I. limpet washer or G.I. limpet washer.filled with white lead complete excluding the cost ofpurlins, Rafters and Trusses.(1) 0.80 mm thick sheet.	SMT	726.92	734.19	246687.84
A7.20	140.00	Providing and laying polished Kota stone slab flooring over 20mm (Average) thick base of cement mortar 1:6 (1-cement: 6-coarse sand) or L.M. 1.1.5 laid over and jointed with grey cement slurry including rubbing and polishing etc. complete. (B) 30 mm thick.	Sq.Mt.	1069.98	1080.68	151295.20
				TOTAL		23,91,800.93
				GST		4,30,524.17
				GRAND TOTAL		28,22,325.10

SCHEDULE A08 - LECHATE COLLECITON TANK

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A8.1	158.00	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.(B) Dense or Hard soil	Cum	269.87	272.57	43067.16
A8.2	152.18	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mmnominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	471043.82
A8.3	106.31	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement conctere 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 450 kg)	Cum	5202.05	5254.07	558567.82
A8.4	12.54	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.	Sq.Mt.	178.61	180.40	2262.22
A8.5	331.18	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.	Sq.Mt.	244.76	247.21	81869.94
A8.6	11043.99	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	853589.70
A8.7	180.40	Finishing wall with water proofing cement paint of on wall surface (two coat) to give an approved brand and manufacture and of required shape even shaped after thoroughly brushing the surface to remove all the dirt and remains of loose powered materials.	per bag of 50 kg of cement	60.20	60.80	10968.32
A8.8	264.18	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	60892.57
A8.9	15	Apply and supply of rungs in steps	NOS	450.00	454.50	6817.50
					TOTAL	20,89,079.05
					GST	3,76,034.23
					GRAND TOTAL	24,65,113.28

SCHEDULE A09 - MATERIAL INSPECTION SHED CIVIL WORK

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A9.1	281.63	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.(B) Dense or Hard soil	Cum	269.87	272.57	76764.74
A9.2	174.66	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.(B) Dense or Hard soil	Cum	292.18	295.10	51542.17
A9.3	340.59	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	135.56	136.92	46633.79
A9.4	115.70	Add extra for Disposing off the excavated stuff of above items for lead of (E) 400 to 500 m	Cum	128.00	129.28	14957.91
A9.5	116.57	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 8-10 T power roller, complete as per requirements.	Cum	2800.00	2828.00	329670.99
A9.6	506.84	LDPE SHEET	SMT	180.00	181.80	92144.07
A9.7	94.28	Providing and laying cement concrete 1:4:8 (1-Cement : 4- coarse sand : 8- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	2742.27	2769.69	261139.09
A9.8	124.94	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concterework , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work intransit mixer for a lead up to 10 kms having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cementconcrete 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	5202.05	5254.07	656424.68
A9.9	263.05	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.	Sq.Mt.	178.61	180.40	47454.59
A9.10	9.80	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.	Sq.Mt.	312.56	315.69	3095.03
A9.11	12822.01	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	991013.01

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A9.12	80.52	Providing and filling polysulphide sealant of approved make in construction/contraction joints of size 5 mm wide x 35 mm deep, including joint cleaning, primer application, and finishing as per manufacturer's specifications.all complete as per direction of Engineer in Charge	RMT	50.00	50.50	4066.26
A9.13	23.45	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	Cum	4203.06	4245.09	99552.32
A9.14	164.71	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	37965.01
A9.15	164.71	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered	Sq.Mt.	83.53	84.37	13896.35
A9.16	1.00	Design, Supply and Erection of Pre-Engineered Building (PEB) Shed Building Parameters: Frame Type- Clear Span; Width - 16.870 m; Length - 25.960 m O/o; Eave Height - 10.8 m from FFL; Width Module - As per drawing; Roof Slope - 1:10; Bay Spacing - As per drawing; Type of Frames - Non-Expandable; Roof Sheeting - 0.5mm 550mpa AZ 150 Blue, as per drawing; Wall Sheeting - 0.5mm 550mpa AZ 150 Colour Coated, either blue or white.; Wind bracing - Rod Bracings or Angle Bracing; Openings at Right Side wall - 2.3m brick and above sheeted; Openings at Left Side wall - 2.3m brick and above sheeted; Openings at Front End wall (Office Building) - Nil; Partition wall - Nil; Gutters - Pre Painted Colour Blue; Downspout - Pre Painted Colour Blue; Roof Accessories: Turbo ventilators - 8 Nos.; Skylights – Polycarbonate – 500mm Strip - Considered as per drawings.; Roof Monitor - Nil; Roof insulation - Nil. Building Addition: Framed Openings for Rolling shutters -Nil; Canopy - Nil; Louvers - Nil; Crane beams - Nil; Facia - Nil; Cage ladder - 1 Considered; Wall lights - Nil; Fixing provision for lightening - Nil. Steel work finish: Primary, Frames, Built-up, HR Sections -1 coat of red oxide primer 2 coats of Epoxy finish paint; Secondary members, Purlins, Girts - Pre-galvanized 120 GSM; Anchor Bolts - Black. Applicable Codes: Design - AISC 13th Edition; Load - Metal Building Manufacturer's Association, MBMA 2006; Welding - American Welding Society, AWS D1.1.96. Material Specifications: Built-Up Members ASTM 572, GRADE 50 Min. Strength Fy = 345 MPa; Hot-Rolled Members Beams & Columns ASTM GRADE A36/IS:2062 Min. Strength Fy = 250 MPa; Cold Formed Secondary Members Pre-galvanized ASTM 1011 Min. Strength Fy = 340 MPa; Sheeting & Liner Panels Galvanized Steel ASTM A 653M SS Grade 340 Class 1 Fy = 340 MPa; Galvalume Steel ASTM A 792M Grade 345 Type B Fy = 345 MPa; Gutters Galvanized Steel ASTM A 653M SS Grade 340 Class 1 Fy = 340 MPa; X-Bracing Members Rods IS: 2062 Grade A Fu = 250 MPa Angles IS: 2062 Grade A Fu = 250 MPa; Anchor Bolts IS 2062: 2006 Grade A (Black Unpainted) Fy = 250 MPa Fu = 410 MPa; High Strength Bolts ASTM A 325 Fu = 825 MPa; Machine Bolts IS: 1367 Class 4.6 (PART 1 TO 3) Fu = 400 MPa.	Lot	3050000.00	3080500.00	3080500.00
				TOTAL		58,06,820.01
				GST		10,45,227.60
				GRAND TOTAL		68,52,047.61

SCHEDULE A10 - VEHICAL REPAIRING RAMP

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A10.1	34.55	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.(B) Dense or Hard soil	Cum	269.87	272.57	9417.24
A10.2	26.05	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 8-10 T power roller, complete as per requirements.	Cum	2800.00	2828.00	73680.55
A10.3	113.28	LDPE SHEET	SMT	180.00	181.80	20593.95
A10.4	7.49	Providing and laying cement concrete 1:4:8 (1-Cement : 4- coarse sand : 8- hand broken stone aggregates 40 mmnominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	2742.27	2769.69	20743.18
A10.5	60.69	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete 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 450 kg)	Cum	5202.05	5254.07	318843.35
A10.6	303.21	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	Sq.Mt.	312.56	315.69	95720.21
A10.7	5213.44	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	402946.77
				TOTAL		9,41,945.25
				GST		1,69,550.15
				GRAND TOTAL		11,11,495.40

SCHEDULE A11 - SECURITY CABIN

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A11.1	36.77	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.(B) Dense or Hard soil	Cum	269.87	272.57	10021.46
A11.2	32.52	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	135.56	136.92	4452.44
A11.3	11.60	Add extra for Disposing off the excavated stuff of above items for lead of (E) 400 to 500 m	Cum	128.00	129.28	1499.82
A11.4	3.38	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 8-10 T power roller, complete as per requirements.	Cum	2800.00	2828.00	9553.67
A11.5	10.80	LDPE SHEET	SMT	180.00	181.80	1963.44
A11.6	9.22	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	Cum	3064.60	3095.25	28525.83
A11.7	16.51	Providing and laying in position Ready Mixed M-250 grade concrete for reinforced cement concrete 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 450 kg)	Cum	5011.95	5062.07	83571.84
A11.8	113.63	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	Sq.Mt.	312.56	315.69	35873.31
A11.9	1834.96	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	Kg	76.52	77.29	141823.81
A11.10	13.93	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	Cum	4203.06	4245.09	59135.26
A11.11	18.16	WATER PROOFING ON TERRACE (ACRELLIC BASED 2 COAT BEFOR CHINA MOZAIC)	SQ MT	700.00	707.00	12836.30
A11.12	9.18	DOOR, WINDOW ALLUMINUM FRAME	Sq.Mt.	5700.00	5757.00	52849.26

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A11.13	47.50	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand).	Sq.Mt.	228.22	230.50	10949.73
A11.14	64.40	Providing 20 mm thick double coat mala cement plaster on interior brick / concrete work for plastering comprising of base coat of 12 mm thick cement plaster in cement mortar (1Cement : 4 coarse sand) in rough finishing and 8 mm thick topcoat of cement mortar 1:2 (1 Cement : 2 Coarse sand) finished with trowel including scaffolding curing etc. complete.	Sq.Mt.	281.14	283.95	18286.46
A11.15	134.29	Wall painting (two coats) with plastic emulsion paint of approved brand and manufacture on undecorated wall surface to give an even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth.	Sq.Mt.	83.53	84.37	11329.66
A11.16	3	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 beams and joists, channels angles Tees, flats, with connecting plates or angle cleats as in main and cross beams. Hip and jack rafters, purlins connected to common rafters and the like	Q	9018.30	9108.48	22804.72
				TOTAL		5,05,477.01
				GST		90,985.86
				GRAND TOTAL		5,96,462.87

SCHEDULE A12 - LEACHATE COLLECTION WELL

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A12.1	54.21	Excavation in earthwork and foundations in below depths for foundations of structures and retaining wall, landfill side slopes and base, using JCB Earth movers and other required machinery, tools and plants, labour etc including cutting all sorts of soils, hard murrum including rocky strata (with controlled blasting or without blasting as per statutory authority permissions) (if any), as per line, level and dimensions as shown in the drawings, including ramming, trimming, preparation of base and side slopes, foundations as required in true shape, line and level, sorting out and stacking of the useful material, utilizing all the material for filling required for area grading in base and sides of landfill cell and surface dressing upto the required levels and disposal of excavated stuff within 500 m lead as directed by engineer in-charge and to the satisfaction of engineer in charge.	Cum	403.31	407.34	22,082.95
A12.2	11.22	Procurement and laying of 230 mm to 300 mm thick rubble soling in two layers 150 mm each over fully compacted subbase including stone packing hand-set with broader side flat, filling voids /interstices with smaller size hand broken stones, binding layer of sand or stone grit including compaction with 10 T power roller, complete as per requirements including all tools and plants, equipments, material and labour etc complete as directed by engineer in charge and to the satisfaction of engineer in charge	Cum	2800.00	2828.00	31,719.97
A12.3	35.05	Procurement, Supply, Laying, Jointing and Installation of 1500 micron (1.5 mm thick) virgin quality HDPE liner (both sides textured surface) applied on the compacted clay layer (sides and base of landfill, top cover layers) and anchored in the soil and on the concrete retaining wall as per drawings. 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 of 150 mm and the machine welding shall produce two seams. The lining material shall be of highest quality 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% 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 as per specified IS standards. All the individual steels shall be tested accordingly. The measurement shall be taken of the covered area only and no overlaps will be considered. The entire item includes all materials, labour tools and plants, materials and equipments, jointing of the HDPE sheets, testing for leakages, certificate of test results, necessary use of bonding chemicals etc complete with all materials, labour, tools, and equipment, as per drawings, technical specifications as directed by engineer in-charge and to the satisfaction of engineer in charge. The physical, chemical and mechanical properties of 1.5 mm. thick HDPE Geomembrane, to be procured shall meet / exceed the Specifications of the Geosynthetic Research Institute (GRI). The Specifications of GRI / GM 13, Revision 14, dated 06.01.2016.	sq.m	478.50	483.29	16,940.20
A12.4	35.05	HDPE Liner 1.5 mm thickness (both sides textured) along all side slopes of landfill cell upto anchor trench in embankment (including 10% addition for overlaps)	sq.m	478.50	483.29	16,940.20
A12.5	5.26	Providing and laying plain cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth of the road construction and storm water drainage	Cum	3064.60	3095.25	16,274.13

Item No.	Estimated Quantities	Description of item	Unit	RATE	Rate with 1% labour cess	Total Amount
A12.6	51.12	Providing and laying in position Ready Mixed M-300 grade concrete for reinforced cement concrete work for road construction (pavement) and the storm water drainage, 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	5202.05	5254.07	2,68,580.50
A12.7	420.67	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	SMT	312.56	315.69	1,32,800.05
A12.8	4215.43	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	KG	76.52	77.29	3,25,810.71
				TOTAL		8,31,148.71
				GST		1,49,606.77
				GRAND TOTAL		9,80,755.48

SCHEDULE A13 - PIEZOMETRIC WELL

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A13.1	120.00	Drilling of 200mm hole in all type of strata and collection of samples for well assembly	Mtr.	1430.00	1,71,600.00
A13.2	120.00	Reaming of 250/350 mm in all type of strata for pipe lowering.	Mtr.	1430.00	1,71,600.00
A13.3	120.00	Providing and lowering of 200 mm (ISI make Supreme, Finolex, duke, Duron which are easily available in market) uPVC strainer/blank pipe and lowering labor charges as per aquifer material & lithology	Mtr.	1540.00	1,84,800.00
A13.4	4.00	Supply & packing of proper specific size of gravels/Kapchi in annular space as filter pack material	Job	18000.00	72,000.00
A13.5	4.00	Clay ball packing/ clay packing	Job	10000.00	40,000.00
A13.6	4.00	Development of well by compressor unit till flushing, cleaning, etc.	Job	15000.00	60,000.00
A13.7	4.00	Supply and installation of DWLR with 50-meter cables including telemetry system to record ground water level data online	Set	90000.00	3,60,000.00
A13.8	4.00	Consultancy, supervision and transportation charges.	Job	15000.00	60,000.00
A13.9	4.00	Supply and installation of lock and key system with well head protection(1m*1m*1m*)	Job	15000.00	60,000.00
A13.10	4.00	Mobilization/ demobilization of plants/ machinery with tools and tackles to the working location and from site to site.	Job	5000.00	20,000.00
				TOTAL	12,00,000.00
				GST	2,16,000.00
				GRAND TOTAL	14,16,000.00

SCHEDULE A14 - MECHANICAL WORKS

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A14.1	2.00	Providing sewage submersible, Non clog type suitable for working on Air filled Dry type motor , three phase, 50 Hz +/-3%, 415V +/- 10%, AC supply, 1500 RPM synchronous speed with 3 core flat copper cable from pump to starter panel with cable end terminations (4) all supports, clamps, pipe fittings alongwith mechanical seal, bearing bush, strainer etc. complete set & following M.O.C: Casing CI, SS CF8M impeller, Bronze: wearing ring & Bearing bush, TC mechanical seal, CS/S.S.bearing, S.S shaft with sleeve, SS strainer & MS motor body.: Number of Pumps: 1 Working + 1 Standby Material Of Construction: Casing CI, SS CF8M impeller, Bronze: wearing ring & Bearing bush, TC mechanical seal, CS/S.S. bearing, S.S shaft with sleeve, SS strainer & MS motor body. Discharge : 5 m³/hr. Head : 12 mtr. Motor Rating : 3 HP (1W + 1S)	Set	146348.00	2,92,696.00
A14.2	40.00	Manufacture, supply and delivery of ISI marked HDPE pipes ((IS4984/1985 with latest amendement) having material grade PE-80 in approximate 100 m coil length or as per GWSSB requirement with SS-316 nipple at both ends having 11 TPI threads as per specifications, press fitted and bolted having nominal diameter 63 mm dia	Mtr	181.00	7,240.00
A14.3	4.00	Sluice Valves a) Providing and supplying ISI mark CI D/F Sluice valves of approved makes & confirming to IS 14846 and of following class and diameter; including all taxes, octroi, inspection charges, freight charges, insurance, loading, unloading, conveyance to departmental stores, stacking etc. complete; and b) Lowering, laying and jointing in position including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete as per instructions of Engineer in charge. 50 mm dia Sluice valve PN-1.6 With gear operated (PD type short body)	No.	3483.00	13,932.00
A14.4	4.00	Reflux Valve a) Providing and supplying ISI mark CI D/F Reflux Valves as per IS:5312 (Latest Edition) of following class and diameter including all taxes, insurance, transportation, freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, stacking etc. complete.; and b) Lowering, laying and jointing in position including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete as per Tender Specifications and instructions of Engineer in charge. 50 mm dia Reflux Valve PN 1.6 IS 5312 with ISI mark	No.	3823.00	15,292.00
A14.5	2.00	Design, Supply, Installation, Testing, Commissioning of Bourdon Type Pressure Gauge , ±1% accuracy, Direct bottom 1/2" NPT (M) process connection, IP 67, Glycerine filled, SS304 Case with Bayonet Type Bezel, SS316 L Bourdon Tube, SS 316 Movement material, Aluminium dial with black graduation on white background, Micro Zero adjustable pointer, neoprene gasket, Blow out disc, shatter proof glass, SS tag plate etc as per IS 3624. 150 mm Dial Size - 0 to 20 Kg/cm ²	No.	1412.00	2,824.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A14.6	1.00	Full Bore Electromagnetic Flow Meter - Regular Power operatedDesign, Supply, Installation, Testing, Commissioning of Full Bore Electromagnetic flow meter with factory calibrated, Regular Power Operated, flanged connection, Flow sensor, Indicator, transmitter and totaliser with all accessories viz.surge arrestor, associated cables, cabinets, hardwares, etc complete as per following specifications:a) Flow Meter/ Sensor: DC pulsed type, IP 68 Protection, Flanged process connection as per IS 1538 or equivalent standard, SS304/ Metallic Alloy Flow Tube, SS316/ SS 316 L/ Hastelloy Sensor, SS316/ Hastelloy Grounding Ring/ Inbuilt Grounding Electrode,Neoprene/ Polyurethane/ Hard Rubber/ Rilsan lining, SS304/ Die Cast Aluminium/ Carbon steel with Anticorrosive Paint Coil Housing with Junction Box, CS flanges.b) Flow transmitter / converter: Microprocessor based, Modular design, 2 line LCD for indication of actual flow rate, forward, reverse, sum totaliser display,±0.5% accuracy at 0.3 to 4 m/sec velocity, 4 to 20 mA with HART/Modbus output, one scalable pulse, one status output, IP 67 protection, Die cast aluminium/ polycarbonate/ SS316 with Anticorrosive Paint/ PU finish with glass window enclosure, Inbuilt EEPROM and Data Logger, 20 meters cable length for sensor to transmitter communication etcalongwith wall mounted/ stand mounted cabinet.50mm Nominal Bore	No.	53425.00	53,425.00
A14.7	1.00	Portable generator Portable generator type: Diesel start, diesel run; Rated output at unity power factor at STP (VA): 7500; Starting type: Electric self-start, Rated output voltage: 230 V AC, Fuel tank capacity: 60 litres, Period for which the generator is capable of delivering declared output: 15 hours	No.	500000.00	5,00,000.00
A14.8	1.00	Weigh Bridge Capacity: 50 MT; Type: Pit; Accuracy: 5 kg	No.	1665000.00	16,65,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A14.9		<p>Automatic Wheel Washing System with Top Wash and ETP (1/2) Design, Manufacturing, supply, Erection, Commissioning, installation, packing, transportation, testing, trail, training, handover with inspection documentation, spares, maintenance tools with required civil work. Machine size: 4000 mm Length X 3400 mm Width. Washing direction- Bottom side wheel wash, Underframe wash, Tyre side wash; Washing time: 1 to 2 Mins; Operation of machine - By sensor automatically; Machine washing capacity- 30-40 trucks per hour; VECHILE TYPE & HANDLING SYSTEM Type of vehicles: Trucks, tippers, heavy trucks, bulkers; Vehicle dimensions: 8000 (l) x 3000 (w) x 4000 (h) in mm. approx.; Max weight load of the vehicle: 40-100 tons; Vehicle handling system- self-driven vehicle by drivers; Vehicle washing speed- 3-5km/hr or 30 trucks per hour; Inspection of vehicle - visually by driver or machine operator; Instruction to driver - Led Trafficator signal light system red/green; Washing area required (machine): 12000 (l) x 4500 (w) x 5000 (h) in mm. INCLUDING EFFULENT TREATMENT PLANT of required capacity. Machine quality & Machine structure: Heavy Duty Machine Structure Base Frame with Special I-Beam Designed; Specially Ribbed V Type Angle Structure for Drainage Water During Vehicle Drive Process; Hot Dipped Galvanized Coating up to 80-90 microns; Additional epoxy painted with Aluminium Oxide against corrosion resistance; machine frame Left Side: 01 Nos, Right Side 01 Nos and Total 02 Nos. Vehicle Tyre Side Washing: Galvanized Material Spray Header Lines with Necessary Support; Spray Header for Washing Left Side: 02 Nos, Right Side: 02 Nos, Bottom Side: 02 Nos; Total 06 Nos with splash guard cover. Pipe lines: All The Nozzles in the Shower Area will be made of SS 304. Galvanized Pipe will be as per Indian Standards (Is 1293:2006). Water pumps: Type: Submersible Centrifugal Pump with Necessary Filters. Quantity: 2 (1W + 1S). Rating: 3 Phase 50hz 1440 Rpm. Capacity: 5.5kw 7.5 HP Power 30 Meter Cube Pump Water spray nozzles: Nozzles Type & Angle: Will be of full cone type with spray angle 45-60 degree. Nozzles Capacity: Nozzles Discharge Capacity will be 10- 15 Lpm ±15% with 2-3 Bar approx. Total Qty of Nozzles- as per requirement Lightening system: LED Light Water Proof IP 67 Protection. Capacity of Light: 200-Watt and total no of lights as per requirement.</p>			
	1.00	<p>Automatic Wheel Washing System with Top Wash and ETP (2/2) On ground water tank: Waste Water Tank of Size 40 KLD with MSEP Mild Steel Epoxy Painted Connected load: 15-18 kw Specifications for control panel & electrical accessories Type of enclosure: Control Panel Powder Coated, Single Compartment Type Ip 55 Protection, With Door, Handles, Locks, Panel Key, Other Accessories. Etc. MS Fabricated Powder Coated IP 55 Dust Proof Protection Pumps control: All Pumps Above 7 Hp are Star – Delta connected, Motor Protection, Mcb, Contractor, Overload Relay Protection. Control Transformer. Sensor: IP 67 Through Beam Sensors to Start & Stop the system- 1 sets Imported German/Japan Infrared Sensor Water Proof Sensor. Water pump: Centrifugal Water Pump Will Be Provided Water Pump 3 Phase 415V+-10% Pump with Motor with Pump Guard Safety Water Recycling: Mud Settling Flocculation System Flocculent /Polyelectrolyte Dosing System for mud settling with dosing pump and 200 Ltr HDPE tank. Water tank top open for easy maintenance along with foot valve, strainer, distribution, level sensor and all plumbing accessories. Inbuilt control panel siemens based switch gear with Smmps, Mpcb, contactor, emergency push button, water level sensor etc. On ground water tank: Waste water tank of size min 40 KLD. System for re use of water for wheel washing Machine. Size of tank: as per requirement. Material of construction: MSEP Mild Steel Epoxy Painted.</p>	No.	3750000.00	37,50,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
				TOTAL	63,00,409.00
				GST	11,34,073.62
			GRAND TOTAL		74,34,482.62

SCHEDULE A15 - ELETRICAL WORKS

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
		This includes the scope of Installation, testing & commissioning of equipments as listed below. The main equipments materials & erection materials or hardware shall be supplied & installed by the contractor. The equipment shall be supplied from factory, unloaded from transport shifted to store, reshifted from store to place of erection, unpacking, site assembly of loosely furnished accessories, installation of foundation (civil work done by civil contractor), proper alignment, tightning of busbars with required torque as instructed by engineer in-charge and specifications of the tender.			
A15.1	1.00	Supply, Installation, Testing & Commissioning of DP structure using 9 M long, M.S poles with fabricated structurals for bracing, cross arms for mounting in insulators and accessories / hardwares etc., complete with concreting of pole foundations including connection with ACSR conductors to GEB D.P. structure and including fuses and GO switch of 400A. The D.P. structure shall also have operating handle and shall be supplied with 1 pair of 11KV hand gloves.	Nos	2,35,000.00	2,35,000.00
A15.2		-do- as above 1.1 but includes with 11KV CT / PT - metering unit			
A15.3	1.00	200KVA oil type 11/0.415KV transformer	Nos.	9,35,000.00	9,35,000.00
A15.4	1.00	Supply & Laying of 3C x 95 Sqmm , 11 KV. XLPE (E) Cable.	Mtr.	1,575.00	1,575.00
A15.5	1.00	Supply, Installation, Testing and commissioning of H.T. End Termination through joints - Outdoor type with Raychem kits (3C x 95sqmm)	Nos.	17,000.00	17,000.00
A15.6	80.00	Point wiring for Tissino / Modular secondary light point 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, in below type of pipe to be erected complete with earth continuity and necessary connection with primary light with accessories erected on Metal / PVC / wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic sheet for open / concealed wiring. with necessary Lamp holder / ceiling rose / H.D.Connector as directed. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete Cat. IIIaccessories	pt	166.00	13,280.00
A15.7	80.00	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. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete Cat. IIIaccessories	pt	408.00	32,640.00
A15.8	50.00	Point wiring for Light / Fan/ Bell/ Primary Point 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 upto max length of 10 mt, in below type of pipe erected with 6A Tissino Type ISI marked flush type switch / bell push and accessories erected on Metal / PVC/Wooden Box covered with 3 mm thick PC(Polycarbonate) /Acrylic/Laminated sheet. with necessary Lamp holder/ceiling rose / H.D.Connector as directed. Cat-III	pt	1,213.00	60,650.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.9	20.00	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 step type electronic fan regulator 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. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete Cat-III	pt	668.00	13,360.00
A15.10	48.00	Point wiring for Individual Plug with & 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. [I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/mcb db board (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete Cat-III	pt	505.00	24,240.00
A15.11	20.00	Point wiring for independent PLUG with following size mains earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade FRLS PVC insulated multi strand copper wires upto 10 mt length, in following below of pipe erected complete with ISI marked 3 / 5 Pin socket and tissino type switch erected with earth continuity connection erected on Metal / PVC/Wooden box covered with 3 mm thick PC(Polycarbonate) / Acrylic/Laminated sheet. [II] For 16A Plug and 16 amp switch with 2-2.5 sq.mm Cu. Wire from mcb db board. (f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	pt	738.00	14,760.00
A15.12		Providing following type of Modular Type Accessories mounted with pvc / metallic box covered with appropriate front plate modules erected with necessary connection.			
A15.13	6.00	(3) Two Pin/ RJ-11 Telephone Socket with [A] For One Gang cat-iii		159.00	954.00
A15.14	2.00	(4) TV Co-axial Socket outlet		159.00	318.00
A15.15	55.00	(7) Blank Plate Single		25.00	1,375.00
A15.16	17.00	(8) Modem Jack for Computer Open RJ-45		159.00	2,703.00
A15.17	75.00	(9) 16 Amp. SP one way switch		179.00	13,425.00
A15.18	75.00	(10) 6/16Amp. Universal socket		198.00	14,850.00
A15.19		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			
A15.20	500.00	(a) 20 mm	mtr	24.00	12,000.00
A15.21	800.00	(b) 25 mm	mtr	33.00	26,400.00
A15.22	100.00	(c) 32 mm	mtr	54.00	5,400.00
A15.23		Mains with 1.1 KV grade FRPVC insulated ISI marked stranded Copper conductor wire in existing pipe erected with 1.5 sq. mm copper conductor FR PVC insulated stranded wire of green colour for earth continuity of following size			
A15.24		(A) With medium class Rigid PVC pipe and accessories			
A15.25	700	(c) 2 wire 1.5 sq. mm	mtr	62.00	43,400.00
A15.26	800	(c) 2 wire 2.5 sq. mm	mtr	82.00	65,600.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.27	600	Mains with 1.1 KV grade FR PVC insulated ISI marked stranded Copper conductor wire in existing pipe erected with 2.5 sq. mm copper conductor FR PVC insulated stranded wire of green colour for earth continuity of following size (A) With medium class Rigid PVC pipe and accessories (a).2 wire 4 sq. mm	mtr	111.00	66,600.00
A15.28	50	Providing & Erecting 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 @ coverage of 65%, overall sheathed with black PVC insulation. a).RG-6	mtr	24.00	1,200.00
A15.29	50	Supplying & erecting Delton or approved make Telephone Cable electrolytic grade annealed copper conductor insulated with PE insulation twisted in to pairs with colour combination bunched together in concentric layers so as to minimies cross-talk & wrapped with FR PVC tape & sheathed with FR PVC or HFFR outer Jacket suitable for indoor telephone wiring & confirming to C-DOT S/WS - 113 / IEC 60189-2, UL-1581 SECTION 1080 VW-1 erected in existing pipe.of following size of conductors & nos.of pairs. With necessary connections. A Conductor Size 0.5 mm- (a)Unarmoured 2) Two Pairs	mtr	20.00	1,000.00
A15.30	80	Supplying &. erecting approved make LAN cable of following size in existing pipe as per direction Cat - 6	Mtr.	47.00	3,760.00
A15.31	2	Providing & erecting main Distribution (MDF) indoor type, back mounted frame Suitable for 10 pair box	Mtr.	990.00	1,980.00
A15.32	20	Providing & Erecting following Shockproof tissino type accessories erected on 3 mm thick PC (Polycarbonate) sheet in PVC/ Metal/Wooden Box. erected on wall/ ceiling. (8) Bakelite lamp holder	Ea.	22.00	440.00
A15.33	1	Decorative call bell Ting-tong box type 250 volts complete erected	Ea.	72.00	72.00
A15.34	10	Approved make LED Tube Light 120 cms. 24/36 watt erected, if required. Cat.III	Ea.	850.00	8,500.00
A15.35	20	Supply and Installation of Approved make LED Bulb 9W type Bracket light point mounted on suitable location Cat.III	Ea.	160.00	3,200.00
A15.36	30	Supply and Installation of Approved make LED type Downlighter - Recessed / Surface mounted on suitable location (ii) 18 Watt. Cat.III	Ea.	850.00	25,500.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.37	20	Providing and erecting mirror optic surface or pendent mounting fl.fitting witli tube complete vvitli Electronic Ballast tube complete witli holder with lead wire and connection and adapter if required. [A] With 1 No 40 Watt Tube Cat.III	Ea.	933.00	18,660.00
A15.38	5	Providing and erecting wide spred mirror optic recessed mounting flifitting with tube with Electronic Ballast with each tube separately withTHD less than 10 complete with holderwilh lead wire and connection and adapter. With I X 24/28 watt T-5 Tube Cat.III		1,810.00	9,050.00
A15.39	7	Supplying and erecting approved make — decorative recess / surface mounting type mirror optics lumiiiirc complete with non retrofit tubes, electronic ballast. high circuit P.F. & rust free fitting components mounted in powder coated - • CRCA/ A I . housing with holder clear/ opal diffuser compete erected with lead wire With One Nos. 36 watt PLCFL Cat.III		1,800.00	12,600.00
A15.40	72	Supply, Installation, testing and commissioning of approved make of LED Street light luminaire with die cast aluminium housing for effective thermal management with special polycarbonate material with 6-7.5 meter hight GI pole and its all accessories like pole foundation base plate bracket arm and high transmission index for superior light output suitable for 1X30 W LED, IP 65 IK 07 and Colour tempareture 5000-6000 K with over voltage, short circuit, over laod, silicone gasket complete with all accessories, necessary hardware. The fitting should have flexibility to mount either in horizontal or in vertical positio. (B) With 45watt LED lamp .		7,100.00	5,11,200.00
A15.41	12	Providing Approved make Tripple Pole Metal / Iron Clad Switch & Fuse with neutral link 415/500 V confirming to I.S.S (a)63A Cat.III	Ea.	2,246.00	26,952.00
A15.42		Charges for unloading at site, shifting to site, assembling, leveling, grouting, erecting, supplying, testing,& commissioning main power, Lighting & Distribution Panel & fabricated from MS sheet with following specification.			
A15.43		Main Bus bar should be copper tinned electrolyte type			
A15.44		"Siemens" Gray powder coating to be done on all sheet metal works as required			
A15.45		The design and location of all panels to be approved by the Engineer/consultant before fabrication and installation			
A15.46		All panels should be dust and vermin proof.			
A15.47		All panels should be fabricated out of 16 SWG sheet.			
A15.48		The entire panel board should be with adequate height width & depth as per relevant prevailing I.S.. Code and installation include foundation boats of suitable size as per requirement			
A15.49		Double earthing arrangements should be provided			
A15.50					
A15.51	1	Main It panel cum APFC Panel as per Single Line Diagram	Ea.	8,70,000.00	8,70,000.00
A15.52					
A15.53		PROVIDE RATE FOR ALTERATION IF REQUIRED			

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.54					
A15.55	1	Approved make Four pole on load change over of 200 A with provision of space for the incoming cable from GEB & DG			
A15.56	1	Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA at 415 V . having normal current rating up to 400A. with variable thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections & complete erected in existing 16 G M . S . housing	Ea.		
A15.57		Cat-III			
			Ea.		
A15.58	6	1 nos of 200A MCCB	Ea.		
A15.59	5	1 no s of 100A MCCB	Ea.		
A15.60	20	12 nos of 63A TPN Miniature Circuit Breakers	Ea.		
A15.61	10	4nos of 32A dp Miniature Circuit Breakers	Ea.		
A15.62	15	20nos of 40A TPN Miniature Circuit Breakers	Ea.		
A15.63	25	5 nos of 40A dp Miniature Circuit Breakers	Ea.		
A15.64	1	Metering feeder	Ea.		
A15.65	1	Digital Voltmeter of 0-500 V AC with Voltage selector switch	Ea.		
A15.66	1	Digital Ammeter of 800/5A with Amp selector switch	Ea.		
A15.67	10	Indication lamp for supply	Ea.		
A15.68	60	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	Ea.	111.00	6,660.00
A15.69		Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, confirming to IS 13032 and BS 5486-1986 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used)			
A15.70	6	(A) Single phase 4 way double door	Ea.	352.00	2,112.00
A15.71	6	(B) Single phase 6 way double door	Ea.	577.00	3,462.00
A15.72	2	(C) Single phase 12 way double door	Ea.	696.00	1,392.00
A15.73	1	(G)(M) Three phase 8 way single door for single phase outgoing horizontal box	Ea.	3,095.00	3,095.00
A15.74		Approved make ELCBs / RCCBs conforming to IS: 1264Q and having sensitivity of 30 mA and Short Circuit withstand capacity of 6 KA and suitable - for operation on single phase 240 V. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component, for following Max. rating erected as directed			
A15.75		(I) 25 Amps.DP			
A15.76	5	Cat. III	Ea.	1,950.00	9,750.00
A15.77		(I) 40 Amps.DP			
A15.78	20	Cat. III	Ea.	2,213.00	44,260.00
A15.79		(i) 63 Amps.DP			
A15.80	2	Cat. III	Ea.	3,010.00	6,020.00
A15.81	4	Providing and erecting metallic vitrified danger notice board for HIGH VOLTAGE installation to be erected as peris.	Ea.	81.00	324.00
A15.82	30	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	Kg.	787.00	23,610.00
A15.83	20	Providing and erecting Pipe type earthing with 40 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directed (For panel)	Ea.	815.00	16,300.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.84	15	For using salt and charcoal / coke as required for pipe type earthing.	Ea.	169.00	2,535.00
A15.85	15	Suppling and eregating earth pit of minimum bore dia 150mm size approved make Safe Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free Gl.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, limer pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with constant ohmic value surrounded by higher conductive compound with high charge dissipation suitable for following type of applications (a) For Electrical Installation up to 440V in normal soilLength of pipe -1 MtrBack filling compound -1 Nos Bag of 15 Kg	Ea.	7,150.00	1,07,250.00
A15.86	20	Providing and erecting Pipe type earthing with 17.5 mm dia 2.5 mtr long 'B' grade G.I. pipe with necessary coupling buch buried in specially prepared earth pit & G.I. earth wire of 8 SWG erected & connected as directe			
A15.87		ARMoured ALUMINIUM CABLES			
A15.88		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.			
A15.89	120	(A) 4 core 2.5 Sq. mm	Mtr.	269.00	32,280.00
A15.90	100	(B) 4 core 4 Sq. mm	Mtr.	361.00	36,100.00
A15.91	100	(C) 4 core 6 Sq. mm	Mtr.	505.00	50,500.00
A15.92		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.			
A15.93	15	(B) 3 core 4 Sq. mm		392.00	5,880.00
A15.94		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.			
A15.95	680	(A) 4 core 10 Sq. mm	Mtr.	670.00	4,55,600.00
A15.96	250	(B) 4 core 16 Sq. mm	Mtr.	978.00	2,44,500.00
A15.97		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.			
A15.98	150	(B) 3 1/2 core 35 Sq. mm (16 Sq. mm 1/2 core)	Mtr.	1,839.00	2,75,850.00
A15.99	10	(D) 3 1/2 core 70 Sq. mm (35 Sq. mm 1/2 core)	Mtr.	3,604.00	36,040.00
A15.100	200	3.5 core 185 sqmm	Mtr.	450.00	90,000.00
A15.101	50	3.5 core 300 sqmm	Mtr.	830.00	41,500.00
A15.102		MISCELLANEOUS.			0.00
A15.103	100	Making trench in soft soil of suitable width of 90 cm deep for laying cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	Mtr.	55.00	5,500.00
A15.104	600	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.	139.00	83,400.00
A15.105	15	Providing and erecting iron clad cable route marker duly marked with ELE.CABLE of size 23 cm.X 12 cm. Flushed with ground in cement foundation as directed by Engineer in charge.	Ea.	238.00	3,570.00
A15.106		PrProviding & 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.			
A15.107	100	(C) 300 mm dia			
A15.108	100	(E)150 mm dia	Mtr.	261.00	26,100.00
A15.109	100	(F) 100 mm dia.	Mtr.	224.00	22,400.00
A15.110		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.			

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.111	100	(A) 2 to 4 core 2.5 / 4 Sq. mm	Ea.	33.00	3,300.00
A15.112	20	(B) 2 to 4 core 6 Sq. mm	Ea.	38.00	760.00
A15.113	120	(C) 2 to 4 core 10 Sq. mm	Ea.	38.00	4,560.00
A15.114	100	(D) 2 to 4 core 16 Sq. mm	Ea.	47.00	4,700.00
A15.115	100	(E) 2 to 4 core 25 Sq. mm	Ea.	51.00	5,100.00
A15.116		Providing and, fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.			
A15.117	10	(A) 3 core 35/50 Sq. mm	Ea.	66.00	660.00
A15.118	8	(B) 3 core 70 Sq. mm	Ea.	89.00	712.00
A15.119	2	(C) 3 core 95 Sq. mm	Ea.	134.00	268.00
A15.120	2	(D) 3 core 120 Sq. mm	Ea.	153.00	306.00
A15.121	2	(E) 3 core 150 Sq. mm	Ea.	171.00	342.00
A15.122	10	(F) 3 core 185 Sq. mm	Ea.	217.00	2,170.00
A15.123		Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.			
A15.124	700	(A) 2.5 to 6 Sq.mm	Ea.	6.00	4,200.00
A15.125	900	(B) 10 Sq.mm	Ea.	13.00	11,700.00
A15.126	400	(C) 16 Sq.mm.	Ea.	15.00	6,000.00
A15.127	10	(D) 25 Sq.mm.	Ea.	15.00	150.00
A15.128	200	(E) 35 Sq.mm.	Ea.	20.00	4,000.00
A15.129	20	(F) 300 Sq.mm.	Ea.	98.00	1,960.00
A15.130	150	(i) 185 Sq.mm.	Ea.	80.00	12,000.00
A15.131	5	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]	Ea.	1,581.00	7,905.00
A15.132	5	Providing Fan clamp of 30 x 5 mm flat of required length & 10 mm M.S. Bolt & Nuts erected with necessary hook of 10 mm M.S. Round Bar.	Ea.	98.00	490.00
A15.133	5	Providing 2.5mm.thick laminated acrylic sheet to cover the fan hook or Fan box.	Ea.	18.00	90.00
A15.134	4	Supplying & erecting approved make low noise decorative exhaust fan having square frame ABS body with inbuilt lowers & square frame. 200mm with 1350RPM Cat.II	Ea.	1,687.00	6,748.00
A15.135	4	Providing window frame suitable for erection of Exhaust fan complete covering the remaining portion of window with 15 mm. thick plywood and colour washing to match the colour of the wall	Ea.	188.00	752.00
		STREET LIGHT POLES			
A15.136	75	Supplying and erecting approved make Conical Pole (Standard) Made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759 with required base plate and integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable terminations erected on suitable foundation (included) with necessary GI nut-bolts/J-Bolts. as per details given by manufacturer considering site requirement.The length of poles are as below. (E) 7 Mtr. Long 65mm Top X170 mm bottom dia, 3mm thickness.	Ea.	10,721.00	8,04,075.00
A15.137	75	Providing 1:2:4 cement concrete foundation & 70 % PCC from bottom including excavation for the pole of size 60 x 60 x 120 cm. Deep in below ground level with plinth of 45 cm x 45 cm(or 45 cm dia x 45 cm) high upper ground level with necessary curing and finishing in approved manner. (for 7.5 & 8/8.5 mtr pole)	Ea.	1,280.00	96,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.138	75	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).	Ea.	232.00	17,400.00
A15.139	67	Providing street light pole bracket comprising main Light Class MS tube of 4.2 cms. outside dia. complete with suitable M S . sleeve tubing of approx. 45cnis.length and suitable for 76.5mm. / 1 80 mm or require size pole top having sufficient fastners for fixing the brackets — " 1 and having suitable rise as per site " • 1 condition as directed and spread of 2 mtr.^th suitable welded stiffener reducer :\ and with lock nut complete painted with one coat of Red oxide / PU base primer and two coats of Aluminium / PU paint. Suitable for side entry fitting brackets of following nos of arms. (A)Single Arm bracket 2 Mtr	Ea.	721.00	48,307.00
A15.140	200	Supplying and erecting B class Galvanized iron pipe having smooth finished bore of the pipe on both ends erected nuts and bolts along the pole / wall shaping the pipe as per site requirement. Pipe dia as following. 40 mm dia	Mtr.	247.00	49,400.00
A15.141	1	Supplying & erecting IP 55 grade following size section pillar fabricated from joint less M.S. Sheet with angle iron legs made from jointless M.S. Angle with cable clamps to be buried in ground to have appropriate erection to work uniform until erected with cement concrete foundation and 45 cm high bricks work finishing with plaster etc. hinged double door internally supported on both side, with internal and outside looking arrangement with lock and keys in duplicate 35 x 35 x 5 mm M.S. Angle of Two Nos. one is welded and other with nut and bolt for erecting Bakelite sheet. Painting the Section Pillar inside and out side with three tank powder coated paint. section pillar roof should be without joint with water leakage proof & tested as per IP 55 test & followed by IS 2147 of 1962 (A) 150 X 90 X 75 cm section pillar fabricated from 14 Gauge MS Sheet with angle iron legs 95 cm long made from 40 X 40 X 6 mm thick MS angle.	Ea.	16,526.00	16,526.00
A15.142		Supplying and erecting bakelite sheet 12mm thick HYLAM make on existing angle iron frame..			
A15.143	2	(F) 12mm	sq.mm	2,289.00	4,578.00
A15.144	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. (1)For ISEER Range (KWH/KWH)(3.1 to 3.99) (b) for 1.5 ton capacity	Ea.	36,465.00	1,82,325.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.145	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 (A) 50 KVAR	Ea.	1,41,527.00	1,41,527.00
A15.146		Supplying and erecting, commissioning and testing of Diesel Generating set confirming 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 (With DEF System) 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,			
A15.147	1	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. DG set should have in built fuel tank capacity of minimum 8 hrs of continous running capacity on full load . Erection, commissioning and satisfactory testing as per requirement with first filling of fuel (minimum up to the 80% of fuel tank capacity), 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. (As per new CPCB4+ Emission norms Engine With - Turbo Charger, EGR (Exhaust Gas Recirculation), CRS (Common Rail Fuel System), DOC (Diesel Oxidation Catalyst), SCR (Selective Catalytic Reduction), Integrated wiring harness connected to ECU .) (L) Continuous rating of 100 KVA ,BHP not less than 126 BHP	Ea.	9,58,623.00	9,58,623.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A15.148	1	<p>Providing & erecting approved make AMF control panel suitable for following size of 3 phase, 415 V., 50 cycles, A.C. diesel generating set complete of scope as detailed below:</p> <p>1) Power module: A pair of electromechanically interlocked contactors (for mains & generator) Overload relay for generator contactor Neutral contactor for mains and generator Power socket for connections.</p> <p>2) Control and metering module: Line voltage monitor. Generator voltage monitor Ammeter 3 items attempt start facility. Air circuit breakers/MCB/MCCB of suitable rating for auto/manual operation. Auto/manual switch. Emergency stop push buttons. Manual start push button. frequency meter. Engine hour meter. Two earthing studs.</p> <p>3) Protection module: The engine shutdown in the unlikely event of Low lube oil pressure High cylinder head temperature. V belt failure.</p> <p>4) Indicators with alarm Load on generator.</p> <p>5) Indicators Load on mains Engine fails to start . Emergency stop battery charger.</p> <p>The AMF Panel of following capacity</p> <p>(C) AMF Control Panel for 100 KVA/125 KVA 3 phase DG Set</p>	Ea.	1,19,991.00	1,19,991.00
A15.149	1	<p>Providing & erecting approved make ATS panel suitable for following size of 3 phase, 415 V., 50 cycles, A.C. diesel generating set complete of scope as detailed below:</p> <p>1) Power module: Motorised Changeover switch with ATS controller, Auxiliary contactor with NO & NC contacts with Automatic Battery Charger, indicating lamps for Generator ON, Mains ON, Load and suitable control terminals and power terminals with neutral earthing studs.</p> <p>(E) ATS Panel for 100/ 125 KVA 3 phase DG Set</p>	Ea.	72,035.00	72,035.00
		CCTV System			
A15.150	25	Supply, Installation, Testing and Commissioning of IP HD IR Outdoor Bullet Type Camera , 1/3" or better CMOS Progressive Scan & Minimum (2 MP) FULL HD (1920*1080), fixed lens 3.6 mm, DWDR, ONVIF Profile S or better B39 with mounting accessories	NOS.	8,500.00	2,12,500.00
A15.151	6	Supply, Installation, Testing and Commissioning of IP HD IR Fixed Dome Type Camera , 1/3" or better CMOS Progressive Scan & Minimum (2 MP) FULL HD (1920*1080), 2.8/ 3.6/ 6.0/ 12mm Fixed lens, DWDR, ONVIF Profile S or better	NOS.	3,250.00	19,500.00
A15.152		Supply, Installation, Testing and Commissioning of 25 X Optical zoom HD IR PTZ Camera, 1 / 2.8" or better CMOS Progressive Scan (2 MP) HD (1920*1080), F1.5~F3.4, f=6.36~138.5mm, 360° continuous pan & 120° tilt range, IP66 / NEMA 4X Rated Outdoor Housing & Vandal proof IK10 Rated -SD49225U-HNI	NOS.	9,500.00	
A15.153	1	Supply, Installation, Testing and Commissioning of Open Platform, Linux or equivalent OS, NVR Standalone 32 lch, with 4 satta support, with free Client (Client Software),	NOS.	55,700.00	55,700.00
A15.154	1	Supply, Installation, Testing & Commissioning of Client Software PC for VMS Software, Supply, Installation, Testing and Commissioning of Workstation Window 7, 64 bit, core i5 processor, Ram 4 GB, DVD- RW, 1 gbps NIC port, with keyboard , mouse and 21.5 inch lcd as per tender specification	NOS.	87,000.00	87,000.00
A15.155	2	Supply, Installation, Testing & Commissioning of 6 TB Enterprice Level SATA-II Harddisk for Recording Storage as per tender specification	NOS.	16,800.00	33,600.00
A15.156	2	Supply, Installation, Testing and Commissioning of 55" LED, 55" SMART, FHD, SLIM, 3-HDMI, 2-USB, 1-VGA, AV & RF IN Hospitality Home Menu, WIFI BUILT IN, BLUTOOTH, SCREEN MIRRORING, SMART HUB, USB Cloning, WIFI HOTSPOT	NOS.	36,000.00	72,000.00
A15.157	6	Supply, Installation, Testing & Commissioning of unmanageable networking switch, 8 # 10/100/1000 BT ports, 8 ports providing PoE as	NOS.	14,000.00	84,000.00
A15.158	6	SITC of 8 port loaded patch panel with all require accessories	Nos.	2,250.00	13,500.00
A15.159	1750	SITC of CAT-6 Cable	Rmt	36.00	63,000.00
A15.160	15	SITC of CAT-6 to CAT-6 Signal Booser with IP67 Junction Box	NOS.	4,500.00	67,500.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
		Data Networking & EPABX System			
A15.161	3	Supply, installation,testing and commissioning of Cat 6 Cable in 305 meter bundle	Bundle	9,760.00	29,280.00
A15.162	150	Supply, installation, testing and commissioning of 1.5 mtr. Cat 6 Patch cord	Nos.	125.00	18,750.00
A15.163	35	SITC of CAT - 6 I/O with MS back box & all require accessories	Nos.	900.00	31,500.00
A15.164	35	SITC of single face plate and back box with all require accessories	Nos.	200.00	7,000.00
A15.165	R/O	SITC of dual face plate and back box with all require accessories	Nos.		
A15.166	2	SITC of 24port loaded patch panel with all require accessories	Nos.	3,025.00	6,050.00
A15.167	1	Supply, installation, testing and commissioning of Layer 2 networking switch, 24 # 10/1000 BT ports copper 24ports providing, min. 2 shared mini-GBIC/SFP ports suitable for single mode fiber optics based ring topology configuration, supporting transceivers upto 2000mtrs.	Nos.	29,800.00	29,800.00
A15.168	1	Supply, installation, testing and commissioning of Layer 3 networking switch, 24 # 10/100/1000 BT ports copper, 24ports providing, min. 2 shared mini-GBIC/SFP ports suitable for single mode fiber optics based ring topology configuration, supporting transceivers upto 2000mtrs.	Nos.	32,300.00	32,300.00
A15.169	1	Supply, installation, testing and commissioning of IP EPABX below mention configuration: 1 PRI 8 Trunk Line 32 Analog exts. built in 2 port auto attendant	Nos.	76,000.00	76,000.00
A15.170	8	Normal Phone Binatone Contact 700 (Caller ID & Speaker Phone)	Nos.	900.00	7,200.00
A15.171	8	10 Pair MDF	Nos.	2,200.00	17,600.00
A15.172	6	Supply, installation, testing and commissioning of 15U Rack	Nos.	9,300.00	55,800.00
				Total	83,39,874.00
				GST	15,01,177.32
				GRAND TOTAL	98,41,051.32

SCHEDULE A16 - MACHINERY & VEHICLES FOR O&M

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A14.1	1.00	Bulldozer Operating mass: 12170 kgs; Cubic capacity/Displacement (cc): 6490 cc, Max rated power: 100 hp, Max torque: 465.8 Nm, Rated rpm at Max Torque: 1100 rpm, No. of cylinders: 6, Bore: 105 mm, Stroke: 125 mm, Cooling system: water, Compression ratio: 15.01, Type of fuel injection system: direct fuel injection, Torque rise percentage: max; Minimum ground clearance: 350 mm, Machine dimensions: L 4700 mm X W 3350 mm X H 2870 mm, Type of gear box: Sliding mesh type, Number of speeds forward: 4, Number of speed reverse: 3, Max forward speed: 9.4 kmph, Max reverse speed: 3.2 kmph, Gear ratio: 4F3R; Final drive ratio: 10.07. Sprocket type: integral hub design, Number of sprockets: 2, Sprocket's location: track, Type of fuel filters: Spin on full flow, No. of fuel filters: 2; Type of steering: dry multiple disc spring type control hand operated with spring booster; Fuel tank capacity: 240 ltrs; Under carriage. Under carriage type: semi rigid equalizer bar type. Type of track: standard chain type; Track explanation: box selection high tensile strength steel construction. Track gauge: 1600 mm. Track pitch: 1600 mm. No of track rollers: 5 (each side), No of carrier rollers: 2 (each side), No of track shoes: 38 (each side); Shoe width: 400 mm; Optional shoe width: 500 mm, Ground pressure (Kpa): 73, No of idlers: 01 each side, Blade attachment 1 (standard machine): Angle blade, Type of blade: Angle blade; Blade/dozing capacity (cum): 2, Mass of dozer blade attachment: 1470 kg; Blade width: 3350 mm; Blade Height: 865 mm; Ripper attachment: No; Number of segments/shanks: 0; Max digging depth: 0 mm; Max lifting height: 0 mm; Weight of ripper: 0 kg; Transmission oil capacity: 34 ltrs, Hydraulic oil capacity: 50 ltrs, Hydraulic oil change interval in hrs: 1000; Battery type: Lead acid flooded, Battery rating: 2X12V, 150 Ah; Electric alternator: yes; Type of electric starter: 24V, 7.5 kw; Light type: halogen lamp; No. of lights: 4, Front lights: yes, Rare lights: yes; Hour meter: yes; Fuel gauge: yes; Coolant temp gauge: yes; Battery charge indicator: yes; Engine oil pressure gauge: yes; Cabin/canopy: all round visible cabin with easy walk through access: canopy; Horn: yes; Reverse alarm: yes; Seating plan: yes; Paint: yes	No.	14000000.00	1,40,00,000.00
A14.2	1.00	Front end loader with backhoe Max engine power at rated rpm: 55 kw; Type of wheel drive: two-wheeler; Type of loader bucket: bottom dump; Loader bucket capacity: 1 cum; Backhoe bucket capacity: 0.26 cum; Max torque at rated rpm: 440 Nm; Vehicle emission compliance: CEV Stage-V; Fuel type: Diesel; Type of wheel drive: two-wheel drive; Operating weight: 7510 kgs; Type of tyre: heavy duty; Max turning radius: 3100 mm; Max tuning radius without breaks: 4500 mm; Type of loader bucket: bottom dump; Loader bucket capacity: 1cum; Loader bucket dump height: 2.74 m; Loader bucket payload: 1650 kg; Backhoe bucket capacity: 0.26 cum; Backhoe bucket digging depth: 4.77 m; Backhoe bucket reach from swing pivot: 5.4 m; Backhoe bucket cutting height: 5.97 m; Complete vehicle certification required	No.	4145000.00	41,45,000.00
A14.3	1.00	Excavator Operating weight: 8050 kgs; Shipping weight: 8050 kgs; Bucket capacity: 0.32 cum; Engine max Hp: 76 hp; Max digging depth: 4000 mm; Max cutting height: 7100 mm; Max loading height: 5400 mm; Type of excavator: crawler; Electrical system: 12 v; Operating weight: 8050 kgs; Bucket capacity: 0.32 cum; Standard boom length: 3700 mm; Standard length: 1740 mm; Ground pressure: 0.38 kg/cm2; Fuel tank capacity: 164 ltrs; Digging tool used: bucket	No.	4055000.00	40,55,000.00
A14.4	1.00	Tractor Engine HP: 63HP; No. of cylinders: 03; Rated RPM: 2200 rpm; Max Torque: 275 Nm; Clutch: Dual Clutch Gear box: 8F+8R; Gear box type: constant mesh; Max forward speed: 31.3 kmph; Max reverse speed: 17 kmph; Hydraulic lift capacity: 2050 kgf; Hydraulic pump flow rate @ rated rpm: 40 lpm; Steering type: power; Tyre: front=7.5X16; Rear=16.9X28; Fuel tank capacity: 65 ltrs; Total weight: 2430 kg; Wheel base in mm: 1980; Ground clearance in mm: 420; Styling bannet: Smart; Pedals: pendant; PTO RPM: 540@1789 rpm; PTO power: 53; PTO type: quadra	No.	1350000.00	13,50,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A14.5	1.00	Trailer Type: Semi Trailer; Type of platform: Tipping; Sideboards: Fixed sideboards; Capacity of Trailer: 5 tons; Tolerance: ±5%; No. of wheels: 2; Overall width of trailer measured between extreme points: >2<=2.5 meter; Overall length of platform: >3.5<=5 meter; Axle assembly wheel track: 1500 mm; Ground clearance: 300 mm; Material used for fabrication of trailer as per clause-5, Table-1 of IS: 8213 (latest); Pneumatic tyres and rims conforming to IS 13154 (latest)	No.	84000.00	84,000.00
A14.6	2.00	Water tanker/leachate tanker Type: Semi Trailer (single axis); Tanker capacity: 3000 Ltrs; Capacity of Trailer: 3 tons; Tolerance±5%; No. of wheels: 2; Tanker material: Mild steel; Tanker sheet thickness: 3 mm	No.	100000.00	2,00,000.00
				TOTAL	2,38,34,000.00
				GST	42,90,120.00
				GRAND TOTAL	2,81,24,120.00

SCHEDULE A17 - Miscellaneous

Abstracts Sheet

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
		Consultancy			
A17.1	1	Consultant for Design and Engineering including Civil, Structural and MEP	Job	2500000.00	25,00,000.00
A17.2	1	Consultant for EIA / EC, CTE & CTO	Job	1535000.00	15,35,000.00
		Admin Building Furniture			
A17.3	1.00	Cabin Table Laminate Top Finish (Size: 2100L X 800D x 750Ht mm) with Side Cabinet (Size: 1350L x 400W x 700H mm) Supply, delivery, and installation of modular table as per approved design and drawing complete with worktop, MS frame, partition, cable management, and accessories as detailed below: Main Table Top: Main worktop made of 35mm thick pre-laminated particle board (PLPB) with uniform wood grain finish on both sides finished with 2mm thick machine- pressed PVC edge banding on all exposed edges using hot-melt adhesive Surface to be scratch resistant, stain resistant and easy to maintain. Modesty Panel / Front Panel: Made of 18 mm thick PLPB matching table finish, Fixed rigidly with concealed fittings, Provides privacy and structural rigidity Pedestal Storage Unit: Made of 18 mm thick pre-laminated particle board with matching finish, comprising: <ul style="list-style-type: none"> • 1 cupboard with lockable door • 3 drawers with sliding mechanism and handles • Open shelf compartment suitable for CPU/Books All necessary hardware, fittings, fasteners, accessories, and installation, leveling, and commissioning at site complete.	Nos	45000.00	45,000.00
A17.4	5.00	Single linear type workstation (Size: 1000L x 600W x 750H mm) Supply, delivery, and installation of modular workstation (Single seater linear type) as per approved design and drawing complete with worktop, MS frame, partition, cable management, and accessories as detailed below: a) Worktop made of 25 mm thick pre-laminated particle board with 2 mm PVC edge banding, finished in approved shade and texture. b) Mild steel frame made from minimum 1.2 mm thick MS rectangular/square tube, powder coated with minimum 60–80 microns thickness, including legs, beams, supports, and fasteners. c) Desk-mounted privacy partition made of 12–18 mm thick MDF/board, finished with fabric or laminate, height 300–450 mm above tabletop. d) Integrated cable management system including under-table cable tray, grommet holes with caps, and concealed wire routing provisions. e) Central modesty divider provided between two users f) All necessary hardware, fittings, fasteners, accessories, and installation, leveling, and commissioning at site complete. Storage Pedestal (Under-Table): Mobile / fixed pedestal made of 18 mm thick PLPB with laminate as per selection. Consisting of: One drawer and one shutter unit, Central locking arrangement, Soft-close telescopic channels and hinges, All edges finished with 2 mm PVC edge banding, Handles made of powder-coated metal / ABS	Nos	22000.00	1,10,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.5	11.00	Filing Cabinet (height: 2100mm) Supplying and placing in position low storage unit comprising 2100 mm height base unit as per approved design and drawing, comprising: <ul style="list-style-type: none"> • Made of 18 mm thick pre-laminated particle board (PLPB) with uniform finish • All working and non-working edges provided with 2 mm thick machine-pressed PVC edging using special hot-melt glue at high temperature • Unit fitted with openable shutters with hinges, handles, and locking arrangements • Adjustable shelf made of 18 mm thick PLPB with uniform finish • Complete as per approved sample and as per direction of architect 	Sqmt	16000.00	1,76,000.00
A17.6	6.00	Shutters and Drawers Under pantry platform Providing and fixing shutters and drawers under pantry platform as per approved design and drawing, comprising: <ul style="list-style-type: none"> • Frame made of 18 mm WPC panel with 1 mm laminate finish • Shutters made of 18 mm thick WPC with 1.0 mm laminate finish • 2 mm thick PVC beading provided all around the shutter • S.S. hinges, soft-close channels, handles, stoppers, and magnetic catch as directed • All internal surfaces finished with 0.80 mm thick balancing laminate • Complete as per approved sample and as per direction of architect 	Sqmt	15000.00	90,000.00
A17.7	3.00	Over head storage above pantry platform Providing and fixing over head storage shutters above pantry platform as per approved design and drawing, comprising: <ul style="list-style-type: none"> • Frame made of 18 mm WPC panel with 1 mm laminate finish • Shutters made of 18 mm thick WPC with 1.0 mm laminate finish • 2 mm thick PVC beading provided all around the shutter • S.S. hinges, soft-close channels, handles, stoppers, and magnetic catch as directed • All internal surfaces finished with 0.80 mm thick balancing laminate • Complete as per approved sample and as per direction of architect 	Sqmt	12000.00	36,000.00
A17.8	1.00	Revolving High Back Chair with Headrest 1) Seat/Back Assembly: Seat made of insert-moulded Polyurethane Foam upholstered with foam-laminated mesh fabric over a load-bearing plastic seat cover. Back made of two-piece injection-moulded frame; inner frame upholstered with mesh fabric. Adjustable lumbar support for ergonomic seating. Dimensions (Nominal ± tolerance): Seat: 52.5 cm (+3 cm) W × 51 cm (+2 cm) D Back: 48.5 cm (+2 cm) Max W × 62 cm (+3 cm) H Effective back height from seat: 57 cm (+3 cm) 2) Polyurethane Foam: Density 75 ± 4 kg/m³, Hardness 34 ± 4 3) Armrests (Adjustable): Injection-moulded polyurethane top, height adjustable 4–5 cm in 3 steps, width adjustable. Arm Top Out-to-Out: 62–65 cm, Centre-to-Centre: 53–56 cm 4) Front Pivot Synchro Mechanism: 360° revolving, single-point control, front pivot tilt with feet resting on ground, tilt tension adjustment, 3-position locking with anti-shock feature 5) Connecting Spine Bracket: Aluminium die-cast connecting back with mechanism 6) Pneumatic Height Adjustment: Adjustment range 8.5 ± 1 cm 7) Pedestal Assembly: Die-cast aluminium with 5 twin-wheel castors; pedestal height 65 ± 3 cm; pitch center dia. 71 ± 3 cm 8) Twin-Wheel Castors: Injection-moulded Nylon, wheel dia. 6 ± 2 cm	Nos	18000.00	18,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.9	15.00	Revolving Mid Back Chair 1) Seat/Back Assembly: Seat made of insert-molded Polyurethane Foam upholstered with foam-laminated mesh fabric over a load-bearing plastic seat cover. Back made of single-piece injection-molded frame, inner frame upholstered with mesh fabric. Adjustable lumbar support for ergonomic seating. Dimensions (Nominal \pm tolerance): Seat: 50–53 cm W \times 48–51 cm D Back: 45–48 cm W \times 50–55 cm H Effective back height from seat: 50–54 cm 2) Polyurethane Foam: Density 75 ± 4 kg/m ³ , Hardness 32–36 3) Armrests (Adjustable): Injection-molded polyurethane top, height adjustable 3–5 cm, width adjustable. Arm Top Out-to-Out: 60–64 cm, Centre-to-Centre: 50–54 cm 4) Front Pivot Synchro Mechanism: 360° revolving, single-point control, front pivot tilt with feet resting on ground, tilt tension adjustment, 3-position locking with anti-shock feature 5) Connecting Spine Bracket: Aluminum die-cast connecting back with mechanism 6) Pneumatic Height Adjustment: Adjustment range 8 ± 2 cm 7) Pedestal Assembly: Die-cast aluminum with 5 twin-wheel castors; pedestal height 62 ± 2 cm; pitch center dia. 70 ± 3 cm 8) Twin-Wheel Castors: Injection-molded Nylon, wheel dia. 6 ± 1 cm	Nos	8500.00	1,27,500.00
A17.10	10.00	Paneling on Column / wall Providing and fixing wooden paneling with groove pattern on walls / columns, comprising 12 mm thick commercial plywood fixed over approved framework / wall surface, complete in all respects as per approved drawings and directions of the Engineer-in-Charge. Paneling & Groove Pattern Providing and fixing 12 mm thick commercial plywood, fixed to wall / aluminum / wooden framework using approved screws, plugs or fasteners. Providing groove pattern on plywood surface as per approved design and drawings, with grooves of uniform width and depth, machine-cut to achieve a neat and consistent appearance. Groove spacing, alignment and pattern shall be as approved by the Engineer-in-Charge. Finish Providing and fixing 1.0 mm thick decorative laminate of approved make and shade over grooved plywood using approved adhesive. All exposed edges finished with matching laminate / PVC edge band / wooden beading. Surface shall be smooth, uniform and free from waviness, bubbles or defects. Measurement Measurement shall be in square metres (Sqm) of finished paneling area from finished floor level to Existing slab. (Visible and invisible surface will be consider for Measurement)	Sqmt	4500.00	45,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.11	22.00	<p>Solid / partly glazed door Providing and fixing solid / semi-glazed door shutter made of 30 mm thick flush board, conforming to IS: 2202, fixed in aluminium / wooden frame, complete in all respects as per approved drawings and directions of the Engineer-in-Charge.</p> <p>Door shutter core shall be 30 mm thick solid / block board, factory bonded under pressure. Both faces finished with 1.0 mm thick decorative laminate of approved make and shade, fixed using approved adhesive. All exposed edges finished with matching laminate / hardwood lipping, neatly polished.</p> <p>Vision Panel: Providing and fixing 8 mm thick clear float glass in the shutter for vision panel, size and location as per drawings. Glass shall be fixed with first-class wooden beading, neatly finished and securely held.</p> <p>Hardware: Stainless steel butt hinges, 125 mm (5") – 3 Nos, mortice lock, Hydraulic door closer, Door stopper, Handles and all necessary fixing accessories</p> <p>Measurement shall be in square metres (Sqm) of door shutter area.</p>	Sqmt	14000.00	3,08,000.00
A17.12	111.00	<p>Gypsum board False ceiling Providing and fixing false ceiling at all heights, including providing and fixing framework made of GYPSTEEL ULTRA / equivalent special sections, power pressed from MS sheets and galvanized with zinc coating of 120 gms/sqm (both sides inclusive), conforming to IS: 277, complete in all respects as per drawings, specifications and directions of the Engineer-in-Charge.</p> <p>Framework: Angle cleats of size 25 mm wide × 1.6 mm thick with flanges of 27 mm and 37 mm, fixed at 1200 mm centre-to-centre. One flange fixed to the ceiling with dash fasteners 12.5 mm dia × 50 mm long with 6 mm dia bolts. Other flange fixed to angle hangers of size 25 × 10 × 0.50 mm of required length using nuts and bolts.</p> <p>Angle hangers fixed to G.I. intermediate channels of size 45 × 15 × 0.9 mm, spaced at 1200 mm centre-to-centre.</p> <p>Ceiling Sections: Ceiling section of 0.5 mm thickness, bottom wedge 80 mm with tapered flanges of 26 mm each and lips of 10.5 mm, fixed at 450 mm centre-to-centre perpendicular to intermediate channels.</p> <p>Ceiling sections connected using connecting clips made from 2.64 mm dia × 230 mm long G.I. wire at every junction.</p> <p>Perimeter Channels: Providing and fixing perimeter channels of 0.5 mm thickness, 27 mm high with flanges of 20 mm and 30 mm, fixed to walls / partitions using rawl plugs at 450 mm centre-to-centre and 25 mm long drywall screws at 230 mm intervals.</p> <p>Gypsum Board: Providing and fixing 12.5 mm thick tapered edge gypsum plain boards, conforming to IS: 2095 (Part-I): 2011, with BIS certification mark. Boards fixed to ceiling sections and perimeter channels using drywall screws of size 3.5 × 25 mm at 230 mm centre-to-centre.</p> <p>Jointing & Finishing: Jointing of boards with recommended jointing compound and jointing tape. Finishing with three layers of jointing compound, covering up to 150 mm on both sides of joints, to achieve a smooth and flush surface. Application of two coats of primer suitable for gypsum boards.</p> <p>Cut-outs & Accessories: Including cost of making openings for light fittings, air-conditioning grills, diffusers, and other services, with cut-outs properly framed using perimeter channels and reinforced suitably.</p> <p>Vertical drop / patta up to 150 mm shall not be measured separately; only height beyond 150 mm shall be paid extra. Measurement shall be in square metres (Sqm)</p>	Sqmt	1600.00	1,77,600.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.13	24.00	<p>PVC False ceiling Providing, supplying and fixing PVC False Ceiling of approved make and shade, complete in all respects, as per drawings and directions of the Engineer-in-Charge.</p> <p>PVC Ceiling Panels: Panels made of high-quality rigid PVC (Polyvinyl Chloride), fire-retardant and moisture-resistant. Panel thickness: 8–10 mm (minimum). Width: 200–300 mm interlocking type. Surface finish: smooth / matt / glossy / wood finish as approved. Panels to be termite-proof, corrosion-proof and washable.</p> <p>Supporting Framework: Framework made of GI / aluminium sections comprising: GI perimeter angle fixed to wall with suitable rawl plugs and screws. Intermediate runners and cross members for proper alignment. GI sections to be galvanized with minimum 120 GSM zinc coating. Framework to be rigid and capable of supporting ceiling load.</p> <p>Suspension System: Ceiling suspended from RCC slab / roof using: GI hanger wires / rods at max 900 mm c/c. Proper anchoring using dash fasteners / ceiling anchors. Leveling to be done accurately using spirit level / laser level.</p> <p>Fixing & Installation: PVC panels to be fixed on framework using SS / GI screws, Panels to be interlocked tightly to avoid sagging or gaps, Proper allowance for thermal expansion to be provided, All joints to be straight, uniform and aesthetically finished</p> <p>Cut-outs & Accessories: Necessary cut-outs for: Light fittings, Ceiling fans, AC diffusers, Smoke detectors / sprinklers, Decorative PVC cornice / moulding at wall-ceiling junction (if required)</p> <p>Measurement & Payment: Measurement shall be in square metres (sqm) of finished ceiling Rate to include: Supply of materials, Framework, Fixing, Cut-outs, All tools, tackles and scaffolding</p>	Sqmt	2500.00	60,000.00
A17.14	10.00	<p>Kitchen platform / Washbasin counter with graniate stone top Providing and fixing Sandwiched Granite stone and kota as Kitchen platform / Washbasin counter of width 0.60 to 0.70 mt with 18/20mm thick granite stone of approved color + 30mm Cm in 1:4 + 25mm kota stone one side polished in one piece for kitchen / platform. The joint shall be filled with white cement with pigments to match the color of the stone. The cutouts for Kitchen sink / Basin if required shall be provided as per drawing. The platform shall be supported on pair of polished kota stone @ 0.75 to 0.90 m c/c filled with cement slurry. It shall include fascia. The fascia and other edges shall be duly chamfered / rounded as per drawing. finished sizes shall be measured & paid for as directed complete as per detailed drawings & directed by E.I.C. [Basic Rate of Granite: 1500 Rs/sqm]</p>	RMT	10500.00	1,05,000.00
A17.15	414.00	<p>Wall painting (Two Coats) with Royal paint Wall painting (Two Coats) with Royal paint of approved brand and manufacture on ceilings and sloping roofs surfaces to give and even shade including thoroughly brushing the surface free from mortar droppings and other foreign matter and sand papered smooth with two coat of primer and two coats of wall putty of approved brand at all floor and heights.</p>	Sqmt	330.00	1,36,620.00
		Plumbing Work			

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.16	4.00	<p>Providing and fixing wash down type Wall Hung Water Closet (WC) of approved make and colour, with integral P-trap / S-trap, including jointing the trap to soil pipe with cement mortar 1:1 (1 cement : 1 fine sand), complete in all respects, as per directions of Engineer-in-Charge.</p> <p>Water Closet (WC): Wall hung wash down type WC with integral P or S trap suitable for concealed installation</p> <p>Seat & Cover: Soft close plastic seat and cover</p> <p>Concealed Cistern: Concealed type flush cistern with dual flush facility</p> <p>Flush & Plumbing Accessories: CP brass flush pipe and bend connecting cistern to WC, CP / brass angle cock with wall flange, All necessary connectors, nipples, gaskets and fittings, chair bracket, Complete connection with water supply and soil pipe</p> <p>Installation: WC fixed true to line and level on wall with suitable brackets / frame, All joints properly sealed to prevent leakage, Testing of flushing system after installation</p> <p>Approved Make: Hindware, CERA, Jaquar</p>	Nos	27000.00	1,08,000.00
A17.17	2.00	<p>Providing and fixing table top / flat back type wash basin of approved make, 450 mm × 400 mm size, in white colour, complete in all respects, as per directions of the Engineer-in-Charge.</p> <p>Wash Basin: Flat back / table top wash basin made of vitreous china, Size: 450 mm × 400 mm, Colour: White, Smooth, non-porous glazed finish With overflow arrangement</p> <p>Spout & Accessories: Wall hung stainless steel (SS) spout of approved design and make, Waste coupling (brass / CP) with necessary washers, Bottle trap (brass / CP), angle cock including all fittings All accessories to be corrosion resistant</p> <p>Fixing & Installation: Cutting holes in platform / counter for basin and fittings as required, Making good the surface after fixing including sealing, Basin fixed true to line and level using approved brackets / adhesive, Proper sealing with silicone sealant to prevent leakage</p> <p>Approved Make: Hindware, CERA, Jaquar</p>	Nos	11500.00	23,000.00
A17.18	1.00	<p>Providing and fixing Stainless Steel (S.S.) sink, single bowl with drain board, of approved size and make, complete in all respects, as per drawings and directions of the Engineer-in-Charge.</p> <p>Sink: Sink made of high-grade stainless steel (AISI 304), Type: Single bowl with drain board, Finish: Satin / Matt, Thickness: Minimum 1.0 mm, With provision for tap hole</p> <p>Spout & Accessories: Wall hung stainless steel (SS) pillar spout of approved design and make, Waste coupling (brass / CP) with necessary washers, angle cock, C.P. braided flexible hose 450 / 600 mm long, with nuts, rubber washers and nipple complete, including all fittings All accessories to be corrosion resistant</p> <p>Fixing & Installation: Cutting holes in platform / counter for basin and fittings as required, Making good the surface after fixing including sealing, Sink fixed true to line and level using approved brackets / adhesive, Proper sealing with silicone sealant to prevent leakage</p> <p>Approved Make: Hindware, CERA, Jaquar (Sink: Nirali)</p>	Nos	11000.00	11,000.00
A17.19	2.00	<p>Providing and fixing health faucet with required length of flexible tube, clamp and bracket for fixing to wall as per required.</p> <p>Approved Make: Hindware, CERA, Jaquar</p>	Nos	2100.00	4,200.00
A17.20	4.00	<p>Providing and fixing in position CP brass Two way Bib Cock with cover flange plate including CP brass extension nipple wherever required and all necessary fittings etc complete.</p> <p>Approved Make: Hindware, CERA, Jaquar</p>	Nos	2500.00	10,000.00
A17.21	2.00	<p>Providing and fixing in position CP brass Stop Cock with cover flange plate including CP brass extension nipple wherever required and all necessary fittings etc complete.</p> <p>Approved Make: Hindware, CERA, Jaquar</p>	Nos	2400.00	4,800.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.22	3.00	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.	Nos	4000.00	12,000.00
A17.23	3.00	Supply, storing, installation and testing towel ring , with concealed type brackets fixed, to the wall, with CP brass screws, etc. complete.	Nos	1800.00	5,400.00
A17.24	3.00	Supply, storing, installation and testing liquid soap dispenser with CP / SS cap and bracket, fixed to wall with CP brass screw, etc. complete	Nos	1800.00	5,400.00
A17.25	20.00	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [B] 20 mm. Approved Make: Supreme, Prince Pipes, Finolex, Astral	RMT	330.00	6,600.00
A17.26	30.00	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [C] 25 mm Approved Make: Supreme, Prince Pipes, Finolex, Astral	RMT	400.00	12,000.00
A17.27	50.00	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [D] 32mm. Approved Make: Supreme, Prince Pipes, Finolex, Astral	RMT	500.00	25,000.00
A17.28	25.00	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [E] 40mm. Approved Make: Supreme, Prince Pipes, Finolex, Astral	RMT	600.00	15,000.00
A17.29	10.00	Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete. [F] 50mm. Approved Make: Supreme, Prince Pipes, Finolex, Astral	RMT	800.00	8,000.00
A17.30	2000.00	Providing erecting and fixing double coated PVC water tank of required capacity each with all necessary fittings and connection etc. complete on terrace Approved Make: Supreme, Sintex	Liter	20.00	40,000.00
		Fire Fighting work			
A17.31	4.00	Providing, supplying and fixing CO ₂ type Fire Extinguisher – 4.5 kg capacity , ISI marked aluminium cylinder, suitable for electrical and Class B fires, complete with discharge horn, wall mounting bracket and accessories.	Nos	18000.00	72,000.00
A17.32	6.00	Providing, supplying, installing, testing and commissioning Photoelectric type Smoke Detector , conventional, conforming to IS:2189, complete with base, wiring connections and all accessories, including fixing on ceiling as per drawings and directions of Engineer-in-Charge.	Nos	4000.00	24,000.00
A17.33	1.00	Providing and fixing Manual Call Point (MCP) , break-glass type, ISI marked, complete with enclosure and wiring connections.	Nos	1800.00	1,800.00
A17.34	1.00	Providing and fixing Electronic Hooter / Sounder with flasher, suitable for fire alarm system, complete with wiring and mounting accessories.	Nos	2400.00	2,400.00
A17.35	1.00	Providing, supplying and fixing Fire Alarm Control Panel (FACP) ,conventional, complete with power supply, battery backup, indications, testing and commissioning.	Nos	30000.00	30,000.00

Item No.	Estimated Quantities	Description of item	Unit	RATE	Total Amount
A17.36	150.00	Providing and laying FRLS / FRLSH copper cable 2C x 1.5 sqmm in PVC conduit including termination. for fire alarm system in PVC conduit / casing & capping, including termination, testing and identification.	RMT	300.00	45,000.00
A17.37	1.00	Testing, commissioning and handing over of complete Fire Extinguisher & Smoke Detection System, including submission of test reports, drawings and demonstration to client / staff.	Job	20000.00	20,000.00
				TOTAL	59,55,320.00
				GST	10,71,957.60
			GRAND TOTAL		70,27,277.60