

Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).



NOIDA METRO RAIL CORPORATION (NMRC) LIMITED

CONTRACT NO: NGNECC-01

Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

TENDER DOCUMENTS

VOLUME 6

Bill of Quantities

**Noida Metro Rail Corporation (NMRC) Limited
Block-III, 3rdFloor, Ganga Shopping Complex, Sector-29, Noida -201301,
District Gautam Budh Nagar, Uttar Pradesh, India**

BILL OF QUANTITIES
PREAMBLE

1. The Bill of Quantities shall be read in conjunction with instructions to tenderers, General and Special Conditions of Contract, Notice Inviting Tenders, Outline Construction Specifications, Outline Design Specifications, All Employers' Requirements including appendices, Conditions of Contract on Safety & Health and Environment and Conceptual/Layout Tender Drawings.
2. **Schedule 'A'** of Bill of Quantities comprises of scope of work under Lump sum contract as detailed in clause 2.1 Employer's Requirements-Functional including appendices. The tenderer has to quote a single lump sum amount against Schedule 'A. Payment will be made as per schedule for an account stage payment enclosed as Annexure 1 of Schedule 'A'.
3. **Schedule 'B'** consists of Sub head B-1, Sub head B-2, Sub head B-3 and Sub head B-4.
4. **Sub head B-1** consists of NDSR items for the Civil Works. The tenderer has to quote percentage above/below/at par rates against Sub head B-1.
5. **Sub head B-2** consists of NDSR items for the Architectural and PEB works. The tenderer has to quote percentage above/below/at par rates against Sub head B-2.
6. **Sub head B-3** consists of NDSR items for Plumbing works. The tenderer has to quote percentage above/below/at par rates against Sub head B-3.
7. **Sub head B-4** consists of NDSR items for Diversion of Utilities works. The tenderer has to quote percentage above/below/at par rates against Sub head B-4.
8. **Schedule 'C'** consists of Sub head C-1, C-2 & C-3.
9. **Sub head C-1** consists of DSR 2023 items for Any Civil Works. The tenderer has to quote percentage above/below/at par rates against Sub head C-1.
10. **Schedule 'C-2'** consists of DSR 2025 items for Horticulture & landscaping works under DSR-2018. The tenderer has to quote percentage above/below/at par rates against Schedule C2.
11. **Schedule 'C-3'** consists of DSR 2025 items for E&M works under DSR-2018. The tenderer has to quote percentage above/below/at par rates against Schedule C3.
12. The rates and prices to be tendered in the Unit Priced Bill of Quantities of Schedule 'B', and Schedule 'C' are for completed works and complete in all respect.
13. Tree cutting/transplantation items shall be carried out with prior approval of forest authorities.
14. Demolition of existing structures shall be carried out without making any damage to adjacent structures, utilities and with all safety measures.
15. It will be deemed to include cost of all plants, labour, supervision, materials, scaffolding for masonry work & any work etc., G.I. binding wire, all lead & lifts, carriage, transport, all

temporary works, erection, maintenance, utility identification, survey, all other works mentioned in all Employer's Requirements including appendices, Conditions of Contract on Safety & Health and Environment, contractor's profit and establishment/overheads, together with preparation of design and drawings, all general risks, insurance liabilities, compliance of labour laws and obligations set out or implied in the contract. For taxes and duties, refer clause 11.1.1 of General Condition of Contract and C2.6 of ITT. In case of any discrepancy in DSR items covered under Schedule-C, the relevant item as mentioned in DSR published by CPWD shall prevail.

16. If the tenderer fails to quote rates against any item, the tender will be treated as incomplete and non-responsive and shall be rejected.
17. In case of any discrepancy between the two, the amount in figures shall be treated as sacrosanct.
16. The Financial Package (Pricing Document) must be uploaded by the same person who is authorized as per the submitted Power of Attorney (POA) and who has uploaded the Technical Package using a valid **Class-III digital signature** on behalf of the Tenderer.
17. The Schedule of Payment/Specified in **Annexure-1** of Schedule A is purely for the purpose of releasing 'On Account Payments' for the work executed under the 'Lump sum' component of the work. The work executed against the BOQ items in Schedule B, & C would be paid on measurement basis.
18. For the purpose of payment, the proportion of the cost of viaduct would be considered as 95% of the total cost against the 'Lumpsum' component while the the remaining 5% would be considered towards general works.
19. Thus if '**X**' is the total cost of Lump Sum component and G, & V are considered to be the cost component of General works and Viaduct including Viaduct in Station excluding the concourse portion.
 - (i) **Total Cost of Head "G" (General)** = 5% of X
 - (ii) **Total Cost of Head "V" (Viaduct)** = 95% of X
20. The payment under the Payment Schedule will cover all work specified in the tender drawings and / or provided in the scope of work. The Schedule of Payment will not get modified due to alterations of any type so far as the modifications/alterations are within the scope of work and/or provided for in the tender drawings. However, the percentages stipulated in Annexure I of Schedule 'A' of BOQ may be further distributed after approval of the Engineer. Proposal for the same shall be submitted by the contractor. The decision of the Engineer, in this regard, shall be final and binding.
21. The Contractor may raise their 'On Account' payments on monthly basis as per the status of work on the last day of the respective month.

Tender Inviting Authority: Noida Metro Rail Corporation (NMRC) Limited

Name of Work: Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

Contract No: NMRC/Projects/NGNECC/2026/457

Name of the Bidder/ Bidding Firm / Company :						
PRICE SCHEDULE (DOMESTIC TENDERS - RATES ARE TO GIVEN IN RUPEES (INR) ONLY)						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)						
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	BASIC RATE In Figures To be entered by the Bidder (Including Tax) in Rs. P	TOTAL AMOUNT With Taxes Rs. P	TOTAL AMOUNT In Words
1	2	4	5	7	14	15
1	Schedule A - Price of LumpSum Portion	1.00	Lumsum		0.00	INR Zero Only
Total in Figures					0.00	INR Zero Only
Quoted Rate in Words				INR Zero Only		

Item Wise BoQ

Tender Inviting Authority: Noida Metro Rail Corporation (NMRC) Limited

Name of Work: Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

Contract No: NMRC/Projects/NGNECC/2026/457

Name of the Bidder/ Bidding Firm / Company :						
PRICE SCHEDULE						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)						
NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Estimated Rate in Rs. P	Above/Below/at Par	Quoted Percentage (%)	TOTAL AMOUNT With Taxes	TOTAL AMOUNT In Words
1	2	6	9	13	54	55
1	Schedule B					
1.1	B1 - Civil Works (NDSR)	3,17,91,10,951.29	Select		3179110951.29	INR Three Hundred Seventeen Crore Ninety One Lakh Ten Thousand Nine Hundred & Fifty One and Paise Twenty Nine Only
1.2	B2 - Architectural & PEB Works (NDSR)	90,10,91,700.76	Select		901091700.76	INR Ninety Crore Ten Lakh Ninety One Thousand Seven Hundred and Paise Seventy Six Only
1.3	B3 - Plumbing Works (NDSR)	4,18,30,881.57	Select		41830881.57	INR Four Crore Eighteen Lakh Thirty Thousand Eight Hundred & Eighty One and Paise Fifty Seven Only
1.4	B4 - Diversion of Utilities (NDSR)	10,52,55,948.52	Select		105255948.52	INR Ten Crore Fifty Two Lakh Fifty Five Thousand Nine Hundred & Forty Eight and Paise Fifty Two Only
2	Schedule C					
2.1	C1 - Civil DSR	58,86,90,132.58	Select		588690132.58	INR Fifty Eight Crore Eighty Six Lakh Ninety Thousand One Hundred & Thirty Two and Paise Fifty Eight Only
2.2	C2 - Horticulture DSR	93,39,775.00	Select		9339775.00	INR Ninety Three Lakh Thirty Nine Thousand Seven Hundred & Seventy Five Only
2.3	C3 - E&M DSR	2,00,00,000.00	Select		20000000.00	INR Two Crore Only
Total in Figures					4122033533.62	INR Four Hundred Twelve Crore Twenty Lakh Thirty Three Thousand Five Hundred & Thirty Three and Paise Sixty Two Only
Quoted Rate in Words		INR Four Hundred Twelve Crore Twenty Lakh Thirty Three Thousand Five Hundred & Thirty Three and Paise Sixty Two Only				

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

SCHEDULE - A

Note :- % breakup of Lumpsum quoted price of 'Schedule A'

1	Head G	General	5.00%
2	Head V	Viaduct	95.00%
	TOTAL		100.00%

SCHEDULE-A
SCHEDULE FOR ON-ACCOUNT PAYMENTS UNDER LUMP SUM PORTION

The payment would be governed by the stage payment schedule as detailed below:

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

(i) VIADUCT

Viaduct for two tracks at uniform / variable spacing of Elevated Viaducts of Extensions of Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

(ii) STATIONS

There are Ten (10) nos. of Elevated stations for Extensions of Aqua Line from Depot Station to Boraki and Botanical Garden to Noida Sec-142.

Overall percentage 100% i.e quoted lumpsum price has been divided in two Heads. The Percentage breakup of cost component for Head 'G' General is 5% of lumpsum quoted price and Head 'V' Viaduct is 95% of lumpsum quoted price.

S.NO.	DESCRIPTION OF ITEMS	PAYABLE UNIT	%age BREAKUP OF LUMP SUM QUOTED PRICE	PERCENTAGE BREAKUP OF EACH SUB-HEAD
Head 'G' (GENERAL)				Y
Sub Heads			5.00%	
G.1	Soil investigation for design purpose, Design of Viaduct, etc., building condition survey and monitoring scheme if any.	LS		10.00%
G.2	Batching plants, casting yard, site laboratory, submission of quality, safety, environment and public health manuals duly approved by the employer and submission of instrumentation schemes if any.	LS		15.00%
G.3	Submission of quarterly audit report of safety, quality and environment and public health and Action Taken on non-compliance of non-conformance report and it's closure during last month [To be paid quarterly on pro-rata basis for submission of quarterly audit report].	LS		10.00%
G.4	Submission of utility identification report after actual trenching and making good etc. complete and submission to utility owning agency	LS		7.50%
G.5	Repair & maintenance of Roads/ service roads including de-silting of drains, footpaths, street lights etc. affected by the construction activities during construction period. (Complete road along alignment/ diversion of road as per diversion scheme) Note : To be paid quarterly on pro-rata basis	LS		30.00%
G.6	Reinstatement / Restoration of Road, Footpath, Green area, Services, Signalling, Bus shelter, FOB etc. for final handing over to concerned authorities after completion of work. (Area within barricading) Note : In case of handing over of Roads in phases , the payment shall be made on pro-rata basis.	LS		27.50%
TOTAL				100.00%

Note : The value of each sub-head shall be 5% multiplied by the respective percentage in 'Y'. e.g. for subhead G.1, the value is 5% of lumpsum quoted price multiplied by 10%.

S.NO.	DESCRIPTION OF ITEMS	PAYABLE UNIT	%age BREAKUP OF LUMP SUM QUOTED PRICE	PERCENTAGE BREAKUP OF EACH SUB-HEAD
Head 'V' (VIADUCT) - ELEVATED VIADUCT, VIADUCT IN STATIONS EXCLUDING CONCOURSE PORTION, SPECIAL SPANS, AS SHOWN IN GAD, TENDER DRAWING AND/ OR SPECIFIED IN THE EMPLOYER'S REQUIREMENT				Y
Sub Heads			95.00%	
V.1	Foundation			
V.1.1	In case of Pile Foundation			
V.1.1.1	Piling	Per Pile Group		12.00%
V.1.1.2	Pile Caps	Per Pile Cap		13.00%
OR				
V.1.2	In case of open foundation like isolated / raft foundations	Per Foundation		25.00%
V.2	Piers (all types) including Pier Caps (all type), Portal & Portal beams, Extended pier caps, crash barrier, bearing pedestals & Shear Keys/ stopers	Per Pier		14.00%
V.3	Casting of U-Girder/ I-Girder/T-Girder including stressing, grouting etc. all complete	Per span		21.00%
V.4	Transportation & Erection of U-Girder/ I-Girder/T-Girder complete in all respect	Per span		21.00%
V.5	Fabrication of Steel Spans/Special spans complete in all respect including trial assembly at fabrication plant.	Per span		2.00%
V.6	Erection of steel span/special span including stressing, grouting as applicable etc. complete in all respect including nosing and other arrangements required for erection & launching etc.	Per span		2.00%
V.7	Load Testing of spans as per scope of work complete in all respect	Per span		2.00%
V.8	Bearing (Horizontal & Vertical) - Supply and fixing for all spans including steel spans / special spans complete in all respect. Note : 50% on supply and 50% on fixing	Per span		3.00%
V.9	Completion of work in all respects including railing, G.I. Brackets for cable, earthing, manholes, ground water recharging and other details mentioned in in tender drawings & specifications etc.	Per span		3.00%
V.10	Providing & Fixing Expansion Joints complete in all respect.	Per span		2.00%

V.11	Payments on clearing of the site in all respects and handing over to system contractor for working complete in all respect.	Per span		2.00%
V.12	All other balance structures, works etc. to complete the entire work as per the Employers requirement and as detailed in tender drawings & specifications, handing over of viaduct to NMRC complete in all respect, submission of as build drawings to be paid alongwith final bill complete in all respect and as per the direction of Engineer-in-charge.	LS		3.00%
	TOTAL			100.00%

Note (For ELEVATED VIADUCT, VIADUCT IN STATIONS EXCLUDING CONCOURSE PORTION, SPECIAL SPANS AS SHOWN IN GAD, TENDER DRAWING AND/ OR SPECIFIED IN THE EMPLOYER'S REQUIREMENT) :-

(i)	The value of each sub-head shall be 95% multiplied by the respective percentage in 'Y'. e.g. for subhead V.1.1.1 , the value is 95% of lumpsum quoted price multiplied by 12%.
(ii)	In case of variation in the length of viaduct on either side, i.e. increase or decrease, the total value of viaduct, i.e. 95%, will get modified accordingly on prorata basis for payment purpose. Viaduct, Viaduct in Station excluding concourse portion & Special Spans as shown in GAD and specified in scope of work are included in the Viaduct.
(iii)	The successful Contractor will submit a quantity schedule for the work as per the details finalised by them for the components listed above. Unit payment of the items shall be governed by the Quantity schedule within the total % payment specified against that item. For example if there are 'N' number of pile groups in the viaduct, the payment due on completion of individual pile group would be $0.95 \times 0.12 \times Y/N$.
(iv)	The quantity schedule after being approved by the Engineer will be used for making all stage payments. The Contractor should note that while stage payment will be governed by the quantity schedule, total cost of the 'Lump Sum' component would remain unchanged for the specified work subject to adjustment for the length of the viaduct.
(v)	These percentages may be further distributed after approval of the Engineer. Proposal for the same shall be submitted by the contractor. The decision of the Engineer, in this regard, shall be final and binding.

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Summary of Schedule-B (Non DSR Items)

S.NO.	SUB HEAD	DESCRIPTION	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)	Total Amount
1	Sub Head B-1	Civil Works (NDSR)	₹ 72,40,72,655.72	₹ 2,45,50,38,295.56	₹ 3,17,91,10,951.29
2	Sub Head B-2	Architectural & PEB Works (NDSR)	₹ 18,84,38,186.43	₹ 71,26,53,514.34	₹ 90,10,91,700.76
3	Sub Head B-3	Plumbing Works (NDSR)	₹ 82,94,535.46	₹ 3,35,36,346.11	₹ 4,18,30,881.57
4	Sub Head B-4	Diversion of Utilities (NDSR)	₹	10,52,55,948.52	₹ 10,52,55,948.52

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Schedule B1: for Civil works related to station, Entry/Exit & FOB under NDSR head

Sr. No.	Description	Amount Boraki	Amount Botanical
1	Foundation for Station building, FoB, Entry Exit	₹ 16,68,34,694.48	₹ 50,60,69,554.57
2	Insitu Concrete Works for Station, FoB & Entry/Exit	₹ 14,20,71,746.21	₹ 47,58,60,300.87
3	Reinforcement steel of Fe-500D / Fe-550D grade for Station, FOB and Entry/Exit.	₹ 30,31,41,754.25	₹ 91,85,62,361.73
4	Structural Steel Works	₹ 9,06,50,828.19	₹ 35,79,87,833.60
5	Miscellaneous Works	₹ 2,13,73,632.60	₹ 19,65,58,244.80
	Total	₹ 72,40,72,655.72	₹ 2,45,50,38,295.56

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	SUB HEAD - B1 - CIVIL WORKS						
	(These rates are applicable for the works not covered under Lump Sum scope of work, Employer's requirement)						
B1.1	FOUNDATIONS						
	<p>Providing and installing cast-in-situ vertical bored piles of required depth as per approved GFC drawing with M40/20 grade or reinforcement cement concrete using Portland slag cement including all operations such as mobilization, installation and shifting of piling rig etc, in all soil strata, rock grade V, IV & III (other than in rock grade GI and GII), road, footpath including boulders and Kankar.</p> <p>The item includes disposal of earth muck slush released from piles, top cut portion of pile at contractor's dumping ground with all leads and lifts Disposal / utilization of the excavated soil as per contractors own arrangements / choice including loading, transportation, unloading to any lead with all necessary safety / environmental compliances measures as defined in the relevant section of the contract document.</p> <p>The rate shall include all operations required for installation of pile such as installation of rig, shifting of hydraulic rig, construction of approach temporary road / bridge for piling rig etc. The Cost shall also include the Sonic Logging Tubes, cost of empty boring with MS temporary liner as per site requirement. The cost shall also include cutting / chipping of pile up to cutoff level or up to good concrete and built up of pile cap to required level (as per drawing).</p>						
	<p>Rate Shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer-in-charge. Cost of temporary casing shall be include in the rate. Pilling / Drilling shall be done by use of hydraulic rotary rigs using temporary casing till required depth (Min 4.5 Mtr). Polymer slurry to be used as directed by the Engineer-in-charge. the item shall also include the cost of Polymer slurry to be used for stabilization of bore. Polymer slurry shall be allowed with the specific approval of Engineer based on the soil strata. Socketing shall be as per specifications and the decision of Engineer shall be final.</p> <p>All Complete as per drawings and specifications. Reinforcement shall be paid Separately in relevant BOQ item. Rate shall includes provision of A class MS pipes of 50mm outer diameter and thickness as per technical specification, in all piles at the time of casting to be used for cross-hole sonic test. Pipes shall extend from ground level to bottom of pile where pipe shall be sealed at bottom. Rate includes filling of tubes after sonic test using standard cement non-shrink mortar before casting of pile cap. The item includes drilling and socketing in rock at required depth. Idling of rig due to any reason shall not be payable. Bore drilling shall be done by use of hydraulic rig using temporary casing of required depth and polymer slurry. The item includes the cost of polymer to be used for stabilization of bore.</p>						
	<p>(Note: Pile measurement shall be from cut-off level to founding level as shown in the drawing)</p> <p>Note: 1000 mm dia /1200 mm dia multiple pile foundation will be implemented. The lengths of each pile diameter is indicative only and may vary in Detailed Design stage. Contractor shall locate suitable place for dumping waste material at his own.</p>						
1.1.1	For 600mm dia Pile						
1.1.1.1	By hydraulic rigs using partial depth temporary casing and polymer	RM	10.00	0.00	8,469.71	84,697.08	0.00
1.1.2	For 1000mm dia Pile						0.00
1.1.2.1	By hydraulic rigs using partial depth temporary casing and polymer	RM	3270.00	23445.00	12,685.65	4,14,82,074.44	29,74,15,056.68
1.1.3	For 1200mm dia Pile						
1.1.3.1	By hydraulic rigs using partial depth temporary casing and polymer	RM	4320.00	4320.00	17,419.04	7,52,50,235.12	7,52,50,235.12
1.1.4	Deduction for Providing M35/20 instead of M40/20 Covered under item no: 1	Cum	7406.93	21603.00	-158.22	-11,71,895.30	-34,17,940.22
1.1.5	Carrying out initial vertical load tests as per relevant IS Codes including all arrangements for measuring deflections and submitting reports as per specifications. This includes making of pile head ready for testing at the desired level, supporting / reaction arrangement (including reaction piles/soil/rock anchors, if any) for the kentledge load. (Cost of pile to be tested is paid in item 1.1)						
1.1.5.1	600 mm dia pile (3 times the theoretical design vertical load capacity of 300t , The test arrangements to be designed shall cater for additional 25% above test load)	Nos.	1.00	0.00	17,09,435.96	17,09,435.96	0.00

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1.1.5.2	1000 mm dia pile (2.5 times the theoretical design vertical load capacity of 400t , The test arrangements to be designed shall cater for additional 25% above test load)	Nos.	2.00	2.00	11,23,073.90	22,46,147.80	22,46,147.80
1.1.5.3	1200 mm dia pile (2.5 times the theoretical design vertical load capacity of 600t , The test arrangements to be designed shall cater for additional 25% above test load)	Nos.	1.00	1.00	11,23,073.90	11,23,073.90	11,23,073.90
	Note: 01.For every addition/reduction of 50 tonne or part thereof for the vertical load for which the Piles will be tested, addition / reduction of Rs. 98438 for every 50 MT or part thereof over the accepted rate for item no. 1.5 above shall be effected. 02.The accepted rate shall remain unchanged for variation in test load of +/- 25% than the test load stipulated above in item no. 1.6 above.						
1.1.6	Carrying out initial lateral load tests as per relevant IS Codes including all arrangements for measuring deflections and submitting reports as per specification and tender drawing. This includes making of pile head ready for testing at the desired level, supporting / reaction arrangement (include reaction piles/ soil/ rock anchors, if any) for the kentledge load. (Cost of pile is paid in item 1.1)						
1.1.6.1	600 mm dia pile (2.5 times the theoretical design lateral load capacity of 6t)	Nos.	1.00	0.00	69,647.23	69,647.23	0.00
1.1.6.2	1000 mm dia pile (2.5 times the theoretical design lateral load capacity of 25t)	Nos.	2.00	2.00	1,40,384.51	2,80,769.02	2,80,769.02
1.1.6.3	1200 mm dia pile (2.5 times the theoretical design lateral load capacity of 35t)	Nos.	1.00	1.00	1,40,384.51	1,40,384.51	1,40,384.51
	Note: The accepted rate shall remain unchanged for variation in test load of +/- 25% than the test load stipulated above in item no. 1.6 above.						
1.1.7	Carrying out static routine vertical load tests as per relevant IS Codes including all arrangements for measuring deflections and submitting reports. This includes making of pile head ready for testing at the desired level, supporting / reaction arrangement (incl. reaction piles/soil/rock anchors, if any) for the kentledge load.						
1.1.7.1	600 mm dia pile (1.5 times the theoretical design vertical load capacity of 300t.)	Nos.	1.00	0.00	7,59,746.84	7,59,746.84	0.00
1.1.7.2	1000 mm dia pile (1.5 times the theoretical design vertical load capacity of 400t.)	Nos.	2.00	8.00	5,61,536.95	11,23,073.90	44,92,295.60
1.1.7.3	1200 mm dia pile (1.5 times the theoretical design vertical load capacity of 600t.)	Nos.	1.00	1.00	5,61,536.95	5,61,536.95	5,61,536.95
	Note: The accepted rate shall remain unchanged for variation in test load of +/- 25% than the test load stipulated above in item no. 1.7 above.						
1.1.8	Carrying out static routine lateral load tests as per relevant IS Codes including all arrangements for measuring deflections and submitting reports. This includes making of pile head ready for testing at the desired level, supporting / reaction arrangement (incl. reaction piles/ soil/ rock anchors, if any) for the kentledge load.						
1.1.8.1	600 mm dia pile (1.5 times the theoretical design lateral load capacity of 6t)	Nos.	1.00	0.00	69,639.82	69,639.82	0.00
1.1.8.2	1000 mm dia pile (1.5 times the theoretical design lateral load capacity of 25t)	Nos.	2.00	8.00	1,10,099.79	2,20,199.57	8,80,798.29
1.1.8.3	1200 mm dia pile (1.5 times the theoretical design lateral load capacity of 35t)	Nos.	1.00	1.00	1,98,180.27	1,98,180.27	1,98,180.27
	Note: The accepted rate shall remain unchanged for variation in test load of +/- 25% than the test load stipulated above in item no. 1.9 above.						
1.1.9	Non destructive integrity testing of cast in situ piles of 1000 mm/1200 mm dia and as per specifications, and submitting reports. (Payment shall be made for number of pile tested)	Nos.	238.00	933.00	3,510.21	8,35,430.67	32,75,028.62
1.1.10	Non destructive integrity testing of cast in situ piles of 600 mm dia and as per specifications, and submitting reports. (Payment shall be made for number of pile tested)	Nos.	1.00	0.00	4,757.26	4,757.26	0.00
1.1.11	Integrity pile test using cross hole sonic logging for 1.2m & 1.0m diameter pile as per the provision of ASTM standard D6760, as per drawings & technical specifications (Payment shall be made for number of pile tested)	Nos.	60.00	234.00	6,642.89	3,98,573.38	15,54,436.18
1.1.12	Integrity pile test using cross hole sonic logging for 600mm diameter pile as per the provision of ASTM standard D6760, as per drawings & technical specifications (Payment shall be made for number of pile tested)	Nos.	1.00	0.00	7,180.36	7,180.36	0.00
1.1.13	Excavating trial pits of size 1m x 5m up to bottom of pile cap at pile cap locations in all types of strata to ascertain underground utilities as directed by Engineer - In charge	Nos.	48.00	189.00	1,467.59	70,444.31	2,77,374.47

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1.1.14	Providing and laying M 15/20 concrete for Minimum 75mm thick PCC below pile cap, open foundation slabs, ramp foundations etc extending Minimum 75mm all around beyond pile cap, open foundation slabs and ramp foundations etc. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer, drawings and specifications.	Cum	360.73	713.49	6,768.06	24,41,444.01	48,28,946.54
1.1.15	(II) Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	Cum	10.00	10.00	182.22	1,822.21	1,822.21
	Providing M 35/20 concrete (using cement as per technical specifications) for following concrete works:						
1.1.16	Pile cap / Tie beams/open foundation including excavation at all lift through existing concrete and water bound macadam road /bituminous road / cement road of all thicknesses including dismantling other structures, dead utilities etc. and soil including dewatering, pumping and bailing out water, strutting and shoring etc. This item also includes formwork and backfilling with coarse sand in foundation including watering, curing, compacting with a vibratory plate compactor and loading, leading and disposal of surplus excavated material using lockable and covered trucks so as to ensure that during transportation the carried material does not spill out. Max lead to dumping ground will be all leads. Reinforcement shall be paid separately. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer.	Cum	3114.81	9313.98	9,862.69	3,07,20,356.83	9,18,60,891.03
1.1.17	Providing & laying M-35/20 for basement wall, water tank wall, ancillary building wall, raft , lift pit wall & base slab, esclator pit wall & base slab, wall and also including approved make & quantity of waterproofing compound in concrete, providing PVC water stops at construction joints & hydro testing of tank etc. at any level/depth as per direction of Engineer-in-charge.	Cum	864.63	2644.17	9,492.78	82,07,738.35	2,51,00,517.61
Total of B1.1						16,68,34,694.48	50,60,69,554.57
B1.2	INSITU CONCRETE WORKS						
B1.2.1	Providing and laying M40/20 grade cement concrete (cement as per technical specification) for reinforced cement concrete crash barrier/pier/columns/bund wall protection all-around the station piers/portal piers etc. leaving a gap of 25mm minimum between and following the pier shape exactly on at grade road and stitch concrete of parapet (only for relevant items) etc. as specified in drawings, including centering, shuttering, scaffolding, curing, making grooves, logo etc, if any, as per drawing and all related operations as required to complete the work. The gap shall be filled with compressible filler board of high density (only for relevant items) as directed by Engineer-in-charge/ as per approved drawings. Reinforcement shall be paid separately. Rate shall also include the cost of required dosage of admixture in concrete for obtaining required workability and cost of compressible fibre board as per specification and approval of Engineer-in-charge.	Cum	80.21	261.21	10,804.52	8,66,630.23	28,22,247.63
B1.2.2	Providing M60/20 concrete (cement as per technical specification) for Station piers of all heights (standard pier, portal pier, cantilever piers, Pier for Depot Line, Piers for cross-over structures, abutment stem and stem wall) incl. shuttering, scaffolding, making grooves, logo etc, if any , as per drawing and all related operations as required for completing the work. Pier and pier head to be cast in separate stages as indicated in specifications. Reinforcement shall be paid separately. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer-in-charge. Note: The shape of pier may be square/rectangular/circular/Elliptical/Double-D etc. with grooves. The grooves shown in the drawing may undergo changes during detailed design.	Cum	103.28	291.22	14,499.13	14,97,470.39	42,22,437.33

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
B1.2.3	Providing M50/20 concrete (cement as per technical specification) for Station piers of all heights (standard pier, portal pier, cantilever piers, Pier for Depot Line, Piers for cross-over structures, abutment stem and stem wall) incl. shuttering, scaffolding, making grooves, logo etc, if any , as per drawing and all related operations as required for completing the work. Pier and pier head to be cast in separate stages as indicated in specifications. Reinforcement shall be paid separately. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer-in-charge. Note: The shape of pier may be square/rectangular/circular/Elliptical/Double-D etc. with grooves. The grooves shown in the drawing may undergo changes during detailed design.	Cum	1858.98	5241.91	12,477.24	2,31,94,941.51	6,54,04,574.46
B1.2.4	Providing M40/20 concrete (cement as per technical specification) for structural elements at all levels like floor slabs, track slabs, slabs, chajja slabs, floor beams, cross beams, cantilever beams, inverted beams, gutter beams, shafts, walls, diaphragm, column, stair case slab including steps, sills, lintels, copings, pits, UG water tank, lift pit, escalator pit, Walls, manhole, Parapet, Stitch Concreting etc, including centering, steel shuttering, scaffolding and all related operations as required to complete the work as specified in drawings. Reinforcement shall be paid separately. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer-in-charge. Rate shall include using of steel material for shuttering with suitable pads required for architectural finishes & steel props including of providing grooves, chamfers, moulding, cutout etc. with suitable arrangement in the formwork (Doka or equivalent), placing in proper position with all types of inserts (contractor's or those provided by others), shear connectors etc., Sacrificial Shutter (as per requirement) complete as per drawings, specifications and as directed by the Engineer-in-charge. The rate shall also include construction joints as per specification and providing approved wire mesh/weld mesh at such location as approved by Engineer-in-charge or as shown in drawings.	Cum	8241.00	25414.32	10,804.52	8,90,40,016.42	27,45,89,427.26
B1.2.4.i	Extra over Concrete Items for using M50/20 Concrete (cement as per technical specification) instead of M40/20	Cum	4431.71	14887.56	762.71	33,80,110.34	1,13,54,894.30
B1.2.5	Providing & laying M-35/20 for Beam, Slab, columns, lift walls, walls at all levels, covering slabs for underground water tank /basement, plinth beam, chajja slab, staircase slab, steps, flight, Landing, Stinger beam, beams, sill, floor beams, cantilever beam, inverted beams, gutter beams, lintels, copings, facias, parapet, drop pardsis, railing, mullions, band beams, cornices, toe wall at all levels etc. for profiles, pillars, Beams for compound wall, retaining walls etc. at all levels and as per direction of Engineer-in-charge.	Cum	2009.94	10329.85	10,210.66	2,05,22,802.55	10,54,74,632.50
B1.2.6	Providing M55/20 concrete (cement as per technical specification) for Beams at all levels including centering, steel shuttering, scaffolding and all related operations as required to complete the work as specified in drawings. Reinforcement shall be paid separately. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer-in-charge.	Cum	246.21	827.09	12,688.92	31,24,090.22	1,04,94,881.42
B1.2.6.i	Extra over Concrete Items for using M60/20 Concrete (cement as per technical specification) instead of M55/20 concrete.	Cum	246.21	827.09	1,810.21	4,45,684.55	14,97,205.97
Total of B1.2						14,20,71,746.21	47,58,60,300.87
B1.3	REINFORCEMENT						
B1.3.1	Providing and installing TMT reinforcement steel of Fe-500D / Fe-550D grade , from approved supplier, handling, straightening, cutting, bending, tying, lap welding, placing in position including binding wire in diamond form at each reinforcement junction in all structural concrete at all heights and depths with all leads complete as per specifications and as directed including welding involved towards stray current protection effects as per the system approved by Engineer. Note: (i) No extra payment will be made for lap joint welding in pile reinforcement. (ii) For other structural members, lap joints are permitted for bar diameter <= 25 mm as directed by Engineer. However no extra payment shall be made for the lap the cost of which is deemed to be included in the rates. (iii) The cost quoted should cover all welding and providing mechanical couplers, etc., complete. (iv) The cost quoted should cover coating on reinforcement bar as per technical specification.	MT	3549.64	10755.92	85,400.63	30,31,41,754.25	91,85,62,361.73
Total of B1.3						30,31,41,754.25	91,85,62,361.73

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
B1.4	STRUCTURAL STEEL						
B1.4.1	<p>Providing, fabricating to required profile and shape, transporting, erecting and fixing in position Structural steel (conforming to IS:2062 Grade B0 or equivalent) including procurement of all raw steel materials, bolts, nuts & washer incl. its testing, allowance for all types of wastages, straightening, cutting, bending of section wherever specified, drilling holes, bolting, provision of necessary tools, testing etc. The rate shall also include required surface preparation for application of all coats of shop and site primers and paints as specified. The rate shall also include preparation of complete detailed fabrication drawings based on the design drawings, required for all permanent and temporary structures and their approval from Engineer-In-Charge prior to execution. The rate shall also include provision and installation of base plate, anchor bolts (measured in tonnes) etc as per drawings and specifications. The rate shall also includes supporting structure required for flashing.</p> <p>Any temporary support, staging braces, strutting, tying or anchor bolt, black bolts, fasteners, welding required to withstand the stresses of erection and carrying of plant and equipment's are to be included in the rate.</p> <p>As per above item for any additional structural connections for signages, Steel framing for support of facade finishing, MS Gates, Lift Structure or required by the system contractors using standard plate sections welded & built-up sections, tubes, square, rectangular pipe section, rolled sections such as angle, channels, etc.</p>	MT	93.85	281.44	1,52,796.21	1,43,39,451.00	4,30,02,966.43
B1.4.2	<p>Providing, fabricating and erecting structural steel for FOB and other structural members including transition span consisting of MS members made of Built up /rolled/ hollow structural steel sections, tubular sections profiled to require shape, MS bolts, plates (all types), beams and columns etc with primer coat & three coats of enamel paint of approved make and colour as per specification and drawing, with all lead and lifts and as per the directions of engineer. The rate includes required surface preparation (sand blasting) / as per the specifications.</p>						
1.4.2.1	A) For FOB Structure	MT	53.27	395.46	1,28,874.02	68,65,289.86	5,09,64,521.35
1.4.2.2	B) For PEB structure	MT	538.87	2048.67	1,28,874.02	6,94,46,087.32	26,40,20,345.82
	Total of B1.4					9,06,50,828.19	35,79,87,833.60
B1.5	MISCELLANEOUS ITEMS						
	Expansion Joints						
B1.5.1	<p>Providing and installing in position approved building expansion joint at floor level between platform level slab, concourse level slab or all location as shown in approved drawings or at locations approved by Engineer consisting of aluminium extrusions, anti-skid serrated top plate (Straight / Curved) with vapour barrier, sealant etc. as per details and specifications or as approved by Engineer. Entire installation is to be carried out strictly in the presence of manufacturer's representative at all times. No extra payment will be made for providing thermocoal at expansion joint between columns / beams / slabs or locations shown in drawings at the time of construction of RCC elements.</p>						
B1.5.1.1	Expansion / Contraction = + 100mm/ - 100mm Vertical seismic movement = + 15mm / -15mm	m	200.00	668.00	11,955.67	23,91,134.76	79,86,390.09
B1.5.2	Providing and fixing sheet covering over expansion joint with stainless steel sunken head screws as per GFC drawing						
B1.5.2.1	Aluminium fluted strips 3.15mm thick and 150mm wide	m	100.00	334.00	422.27	42,227.30	1,41,039.20
B1.5.2.2	Aluminium fluted strips 3.15mm thick and 200mm wide	m	100.00	334.00	590.31	59,030.93	1,97,163.32
B1.5.3	Supplying, pouring and packing non-shrink grout as per manufacturer's specifications under base plates of columns, trusses, portals etc. complete as per drawings and specifications, including cost of packing plates.	Cum	4.00	16.00	72,546.42	2,90,185.68	11,60,742.73

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
B1.5.4	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like water tanks, roof slabs etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI212- 3R-2010 i.e. by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guaranteed for 10 years against any leakage.						
B1.5.4.1	(a) For vertical surface two coats @0.70 kg per sqm per coat	Sqm	3105.36	11715.84	438.64	13,62,135.79	51,39,038.61
B1.5.4.2	(b) For horizontal surface one coat @1.10 kg per sqm.	Sqm	2405.60	3131.97	337.16	8,11,081.12	10,55,986.75
B1.5.5	Supplying and filling in plinth with sand under floors. , under foundations, slabs, similar locations etc including watering, ramming, consolidating and dressing complete as per drawings, specifications and as directed by Engineer-In charge.	cum	10.00	10.00	1,810.21	18,102.09	18,102.09
B1.5.6	Supplying and fixing GI Expansion Fasteners (appx. length 300mm) of approved make, including testing for fixing into already constructed RCC structure.						
B1.5.6.1	a) 12mm dia	Nos.	126.00	504.00	253.38	31,925.70	1,27,702.79
B1.5.6.2	b) 16mm dia	Nos.	126.00	504.00	680.03	85,684.37	3,42,737.47
B1.5.6.3	c) 20mm dia	Nos.	126.00	504.00	1,352.78	1,70,449.78	6,81,799.12
B1.5.7	Supplying & fixing Rebar Fasteners (approx. length 300mm) of approved make, including the cost of rebars and testing for fixing into already constructed RCC structure.						
B1.5.7.1	a) 8mm dia	Nos.	250.00	1000.00	192.22	48,053.77	1,92,215.07
B1.5.7.2	b) 12mm dia	Nos.	250.00	1000.00	445.59	1,11,398.40	4,45,593.61
B1.5.7.3	c) 16mm dia	Nos.	250.00	1000.00	1,399.39	3,49,846.76	13,99,387.06
B1.5.8	Providing and fixing 160 mm dia UPVC (Working pressure 6 kg/sqcm) pipes with 3 mm size slots depth as per drawings & direction of Engineer in charge complete in all respects. The rates includes all material, labour, Tools & Plant, Carriage, Scaffolding, man lifter, clamps, frame, fasteners etc. complete in all respect and as per the direction of Engineer-in-charge.	Rm	200.00	800.00	1,358.60	2,71,720.77	10,86,883.07
B1.5.9	Providing, fabricating and fixing rain water drainage pipe from gutter at roof level to gutter at platform and from staircase & corridor roof to local drain and from roof level to ground level wherever required at any height including clamps, brackets, fasteners, etc. in proper line and level. (Note - nothing extra will be payable on any account)						
B1.5.9.1	GI Pipe 200mm	Rm	100.00	450.00	2,896.18	2,89,618.07	13,03,281.32
B1.5.9.2	GI Pipe 150mm	Rm	10.00	10.00	1,574.12	15,741.22	15,741.22
B1.5.9.3	GI Pipe 100mm	Rm	10.00	10.00	1,049.41	10,494.15	10,494.15
B1.5.10	Providing & construction of flexible pavement consisting of 200mm thick granular sub-base (As per Cl.401), 250 mm thick WMM (As per Cl.406), 50 mm BM (As per Cl.504); 90 mm thick Dense Bituminous Macadam (As per Cl.507) and 40mm thick Bituminous Concrete As per Cl.509 of MoRTH Specification respectively, duly excavating the ground to the required depth, preparation of subgrade by filling with contractor's good quality own earth, levelling, compaction etc. as indicated in the tender drawing including matching the top BC layer with the existing Bituminous surface of adjacent lane etc. complete. item also includes providing and laying prime coat with bituminous emulsion @ 6. - 9.0 Kg/10 sqm over WMM surface (As per Cl.502) and tack coat for BM, DBM and BC (As per Cl. 503) All clauses referred above are of MoRTH specifications. The thickness may vary by ±10% as per the detailed drawings, and this should be included in the rates.	Sqm	2363.90	19469.45	3,917.79	92,61,271.20	7,62,77,277.62

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
B1.5.11	Providing and fixing 2.0m high temporary barricade and arrangement for traffic diversion such as traffic signals during construction at site, for day and night as per requirement and drawing. During construction barricading and arrangement for traffic diversion has to be kept continuously and maintained properly till the completion of all the activities. Local shifting 30280 of barricading along with all accessories including indicators, illuminators and delineators etc. at a particular station may be required during execution. and for traffic management. Nothing extra will be paid for dismantling and re-erecting the barricades the traffic signals and other arrangements at the same place/stretch within the same stage.	RM	1245.00	4980.00	3,741.83	46,58,582.89	1,86,34,331.55
	Note: The payment schedule for item No.1.5.11 shall be as follows.						
	(i) 70% on installation						
	(ii) 30% for proper maintenance (cleaning/lining/painting etc.) and shall be paid at the end of the work when barricade is removed or shifted to some other station/location and cleaning the site by making it good.						
	(iii) The released barricades will be the property of the contractor and he is also responsible for shifting all such release materials away from the site.						
	(iv) While erecting barricade, the bottom gap between barricade and road should be plugged with cement concrete from inside.						
	(v) There should be minimum openings at the end of barricade to allow access of lorries and machine to site work area. Even these spacing should have proper opening/closing arrangements.						
	(vi) Adequate blinking lights and combination of continuous LED rope lighting on barricade during night time must be ensured. The cost of this item should include provision for power pack/Genset etc so as to ensure the blinking of lights in night time as long as barricades are in position at the work spot.						
(vii) After completion of the entire work, the released barricades will be the property of the contractor and he is also responsible for shifting all such released materials away from the site.							
B1.5.12	Cutting transporting of trees (lead upto 30 kms), stacking and handing over to the concerned department as per the instruction of Engineer-in-charge. Girth shall be measured at a height of 1.35 m above ground level						
B1.5.12.1	Girth upto 30 cm	Each	7.00	523.00	276.90	1,938.32	1,44,819.89
B1.5.12.2	Girth 31 cm to 50 cm	Each	10.00	748.00	318.06	3,180.63	2,37,911.45
B1.5.12.3	Girth 51 cm to 75 cm	Each	10.00	752.00	1,199.91	11,999.10	9,02,332.25
B1.5.12.4	Girth 76cm to 125 cm	Each	30.00	2240.00	1,995.62	59,868.56	44,70,185.56
B1.5.12.5	Girth more than 125 cm	Each	10.00	752.00	3,531.81	35,318.08	26,55,919.99
B1.5.13	Transplanting the market trees of various girth to the place shown by Engineer/Engineer's representative within a lead of 1.5 km, with all tools, plants, man & machinery and necessary preparation such as Preparation of earth ball of tree roots of desired depth & diameters Dislodging, lifting, transportation and transplanting tree from original place to the new place including all arrangement. T&P Labour etc. for successfully completing the work. Excavating pits of adequate size, arranging loose soil, mixing of manure, fertilizer, insecticides etc. to ensure survival of the trees being transplanted Maintenance of tree i.e. watering, manuring, soil heaping, Spray of insecticides for one year. All above operations shall be executed as per specification.						
	Girth upto 30 cm	Each	7.00	523.00	10,703.91	74,927.39	55,98,146.27
	Girth 31 cm to 50 cm	Each	10.00	748.00	14,489.20	1,44,892.03	1,08,37,924.05
	Girth 51 cm to 75 cm	Each	10.00	752.00	18,910.12	1,89,101.19	1,42,20,409.44
	Girth 76 cm to 125 cm	Each	20.00	1503.00	22,530.41	4,50,608.12	3,38,63,199.96
	Girth 126 cm to 200 cm	Each	5.00	301.00	24,622.89	1,23,114.44	74,11,489.12
	Stage wise payment for the work will be as following:						
	(i) 30% after tree transplanted.						
(ii) 40% after sprouting & establishment of trees							
(iii) 30% after completion of maintenance period of one year.							
(iv) This being biological work, it is understood that there will be 20% mortality of the trees. Mortality upto 20% will be accepted.							
(v) If rate of mortality is more than 20% no payment will be made to the Contractor for the number of trees which are more than 20% of the trees transplanted							
Total of B1.5						2,13,73,632.60	19,65,58,244.80

SCHEDULE-B (SUB HEAD - B1 - CIVIL WORKS - Non-DSR)

S.No.	Description of items	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	Total of Sub Head B-1				Total Amount	72,40,72,655.72	2,45,50,38,295.56

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Schedule B2: for Architectural works related to station, Entry/Exit & FOB under NDSR head

Sr. No.	Description	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1	WOOD WORKS:- for toilet block	₹ 96,454.18	₹ 3,85,816.71
2	STONE/GRANITE/MARBLE	₹ 3,19,90,029.51	₹ 16,42,46,775.96
3	FLOORING WORKS	₹ 2,25,33,309.54	₹ 1,27,47,734.23
4	FINISHING WORKS	₹ 35,57,088.78	₹ 1,08,56,044.72
5	SUSPENDED CEILING WORK	₹ 1,47,87,318.96	₹ 5,56,19,064.60
6	METAL WORKS	₹ 5,27,99,416.47	₹ 20,75,96,576.21
7	GLASS WORK	₹ 45,96,901.64	₹ 1,80,02,791.80
8	MISCELLANEOUS WORKS	₹ 22,54,535.26	₹ 1,17,91,954.18
9	SITE DEVELOPMENT WORKS	₹ 1,55,58,922.00	₹ 6,89,45,649.99
10	ROOFING WORKS	₹ 3,81,15,486.57	₹ 15,37,26,993.96
11	METAL DOORS	₹ 21,48,723.51	₹ 87,34,111.99
	Total	₹ 18,84,38,186.43	₹ 71,26,53,514.34

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1.0	WOOD WORKS						
1.1	Providing & fixing Toilet Cubicle (of following standard dimension which includes 600mm door size width) made of heat, bacteria, water, chemical, scratch, impact and anti bacterial resistant 12mm thick solid compact laminate panels tested in approved laboratory. Finish of the compact laminate should be Suede, Raw silk model includes doors, pilasters & intermediate panels finished with approved texture/shade as per the detail drawings & as per IS 2046 (Indian Standard) and as per fire retardant BS-476/97 standard. This also includes providing and fixing in position necessary hardware made out of Stainless steel (Grade 304) as per manufacturer's specifications & Architects instructions like (1) Door Knob, (2) Gravity Hinges, (3) Thumb turn lockset with Occupancy indicators, (4) Coat hooks with Door stopper (5) U- Channels, (6) Adjustable foot/pedestal, (7) Top rail (8) Rubber noise deafening tape, (9) Screws & wall Plugs. All screws will of 304 Grade in stainless steel with satin finish. All pilasters are supported by stainless steel Bottom Cladding.						
1.1.1	Toilet Cubicle with standard dimension of 2000-2100mm Height x 1000mm Width x 1550mm Depth, which includes 600mm door size width).	NO.	2	8	37,854.86	75,709.71	3,02,838.86
1.2	Providing and fixing Urinal partition made of 12 mm thick compact laminate total height 1195 mm, Depth 450-500mm, Gap from ground 500 to 600 mm (as per drawing) and fixing Toilet UMP (urinal modesty panel) made up of thermosetting resin treated high pressure, self supporting decorative compact laminates with permanently incorporate anti-bacterial agents (under JIS Z2801:2000 certification) during manufacturing. Compact board should be resistance to water immersion through permissible increase on thickness and mass <0.60% and board density >1.35kg/cm3 and fulfilled the criteria of green guard gold certification and manufactured under EN438-2&3:2005 standard. 12mm thick compact board should be Moisture resistant, Impact resistant, termite resistant, Scratch resistant ,Weather and climatic shock resistant. Finish of compact laminates should be suede finish which includes door, pilasters and intermediate panels finished with approved texture/shades as per IS2046 and fulfilled the criteria of fire retardant under BS-476/97 and EN438-6 with classification of BS1D0 standard. Screw & wall plugs should be approved under the instruction of Engineer-in-charge. All screw will of 304 grade in SS with stain finish. All pilasters are supported by SS bottom cladding. Stainless steel L clamp is used to attach the divider to the wall, stainless steel L clamp hardware fittings along with SS 304 screws are used to fix the Urinal partitions on the wall.	NO.	4	16	5,186.12	20,744.46	82,977.85
	SUB TOTAL OF WOOD WORKS					96,454.18	3,85,816.71
2.0	STONE/GRANITE/MARBLE CONCRETE WORKS						
	Note: All granite slabs shall be selected as per approved sample from Tamil Nadu/ Karnataka/ Madhya Pradesh (Lalitpur)/ Rajasthan (Jhalore) of selected quality, uniform in colour, free from cracks, fissures and flakes with staight edges and perfect corners. Unless Colour of granite mentioned, shall be Sadarhalli grey, Jhalore beige, cheema pink, Tan Brown, Rajasthan Black, Jasmine White, Sira Grey or equivalent and shall conform to IS: 3316-1974.						

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
2.1	Providing and fixing flamed finish Sadarhalli grey granite stone (bull-nosed) of size 1200x600x60 mm at platform edge level using 5mm thick approved thick bed adhesive as per specification over prepared base on 20mm (average) thick base of cement mortar in 1:4 (1 cement : 4 total aggregate- sand and 10mm single sized aggregate) using 43 grade cement, water reducing admixture as per ISO 9103:1999 and jointing with white cement with matching colour pigment all complete in levelling course laid to proper slopes over screed base including, base preparation including movement joint in screed as per specification with 10mm thick compressible filler to edge of screed with two parts polysulphide sealant to top edge as per approved drawing and directions of engineer-in-charge. Screed shall be measured, and paid extra as per DSR item no 4.1.8.	SQM	10	40	4,335.00	43,350.00	1,73,400.00
2.1.1	Extra for Red/Saw silk/Tan brown/Jet Black granite	SQM	10	40	1,000.00	10,000.00	40,000.00
2.2	Providing and laying 30mm thick prepolished granite slab of sizes upto and including 1200X600mm on floor using 5mm thick approved thick bed adhesive as per specification over prepared base on 20mm (average) thick base of cement mortar 1:4 (1 Cement : 4 total aggregates - coarse sand and 10mm single sized aggregates) using 43 grade cement, water reducing admixture as per ISO 9103:1999 and jointing with white cement with matching colour pigment all complete (Colour of granite as approved by Engineer) in levelling course laid to proper slopes over concrete base including base preparation, movement joint in screed as per specification with 10mm thick compressible filler to edge of screed/ blockwork junction with two parts polysulphide sealant to top edge, drainage gullies as per approved section, curing, testing etc. all complete as per specifications and relevant drawings. Concrete shall be measured and paid extra as per DSR item no 4.1.3	SQM	4800	29646	3,679.85	1,76,62,545.04	10,90,92,839.36
2.2.1	Extra for Jet Black, Icone Brown, Lakha red or Red Silk, Blue Pearl granite or equivalent	SQM	960	5929	1,000.00	9,59,960.00	59,29,000.00
2.3	Providing and laying 30mm thick prepolished with 25%-35% quantity flamed as per pattern Granite Stone flooring in treads and landings (including bull nosing, rounding the nose and making groove) of steps of approved colour, size and pattern, (sample of granite stone shall be approved by Engineer-in-charge) over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coresand) laid and jointed with neat cement slurry mixed with pigment to match the shade of granite stone complete as per specifications and architectural drawings.	SQM	738	2659	3,679.85	27,17,054.20	97,84,721.71
2.3.1	Extra for Jet Black, Icone Brown, Lakha red or Red Silk, Blue Pearl granite	SQM	738	2659	525.69	3,88,149.52	13,97,813.50
2.4	Providing and laying 18mm thick mirror polished Granite Stone in Risers of steps of approved colour, size and pattern, (sample of granite stone shall be approved by Engineer-in-charge) over 12 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of granite stone complete as per specifications and relevant drawings.	SQM	268	950	2,365.61	6,33,344.84	22,47,329.77
2.4.1	Extra for Jet Black, Icone Brown, Lakha red or Red Silk, Blue Pearl granite	SQM	268	950	525.69	1,40,743.37	4,99,406.85
2.5	Providing and laying 30mm thick mirror polished granite stone work of upto and including sizes of 1200mmX600mm of approved colour/ pattern with 4mm groove all around at all levels for wall linings/ columns/ skirtings (vener work) by mechanical arrangement with SS cramps/ brackets, anchor bolts, 6 mm vertical SS pins of approved make and inserts as per drawings and specifications.(The cost of making necessary grooves all around stone pieces, chamfering of corner edges and polishing, SS cramps/ brackets, anchor bolts, 6 mm vertical SS pins etc., all are inclusive in rate.) Granite Cladding as per architecture approved shop drawing to the direction of Engineer in Charge.	SQM	1319	4448	4,994.08	65,85,376.06	2,22,13,662.39

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
2.5.1	Extra for Jet Black, Icone Brown, Lakha red or Red Silk, Blue Pearl granite	SQM	1319	4448	525.69	6,93,196.06	23,38,275.46
2.6	Providing & Fixing Polished Granite Coping of Jet Black or any other dark granite stone, bull-nosed over 20 mm thick cement mortar 1:4 (1 cement: 4coarse sand) with joint treated with white cement mixed with matching pigment including Rubbing, Curing , Moulding & polishing to edge to give high gloss finish etc. complete.						
2.6.1	30mm thick	SQM	478	2437	3,942.70	18,82,972.43	96,08,349.97
2.7	Granite Wet Cladding - Providing and laying 30mm thick mirror polished granite stone work of all sizes of approved colour/ pattern with polished V groove in horizontal and vertical at all levels for wall linings/ columns (veneer work) with 30-40mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement mixed with pigment of matching shade complete.	SQM	65.93	222.39	4,145.77	2,73,337.99	9,21,976.95
SUB TOTAL OF STONE/GRANITE/MARBLE WORKS						3,19,90,029.51	16,42,46,775.96
3.0	FLOORING WORKS						
3.1	Providing and Laying of Foam Concrete under Raised Floor as / of density 1200kg/cum	CUM	93.09	404.75	4,336.96	4,03,744.07	17,55,384.31
3.2	Providing and laying thick self-levelling epoxy floor coating FORGARD SL or equivalent, in approved color shade & as per manufacturer's specifications, on the concrete floor. The work includes surface preparation with cleaning, grinding by mechanical means and ensuring optimum moisture level in the floor, repairing filling of construction joints/ small cracks in concrete floor with epoxy putty made of epoxy and silica powder, applying two component solvent free epoxy resin based primer, applying 1 mm thick intermediate layer of self levelling three component epoxy screed and final application of 1 mm thick three component self levelling epoxy floor coating to give a smooth glossy finish, all complete as per manufacturer's specifications.						
3.2.1	1mm thick	sqm	331.80	1269.90	460.40	1,52,759.70	5,84,658.04
3.2.2	2mm thick	Sqm	1006.49	3942.16	736.64	7,41,415.82	29,03,933.27
3.3	Providing and laying of solvent-free, cast in situ Epoxy Terrazzo over completely cured & levelled concrete. Fixing divider strips as per architect's design, application of solvent-free epoxy primer followed by approx 10mm thick solvent-free epoxy terrazzo screed of approved colour and design. Grinding, grouting and application of acrylic sealer and polishing as per manufacturers' guidelines, complete with tool and tackles to provide durable, wear resistant, aesthetic flooring. Subfloor Reinforced Concrete shall be cured for a minimum of 28 days. No curing agents to be used in areas to receive epoxy terrazzo. All work shall be done as per manufacturer's specification and recommendation and inclusive of all material and activities. (Reinforced cement concrete to be measured and paid extra as per DSR item no 5.1.2 & 5.2.2).	Sqm	2958.22	400.00	6,808.76	2,01,41,779.17	27,23,503.51

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
3.4	Providing and laying 12mm (minimum) thick with 3mm minimum thick projection on surface yellow coloured directional vitrified porcelain tactile tile of pelican or equivalent (as per specification) laid on floor with laterite 111 cement filler powder mixed with laterite 73 latex admix and applied to a minimum thickness of 4.5mm. The mixing ratio shall be as follows: 20kg bag (laterite 111): 5.5 liter (Laterite 73). Spacer of 3mm shall be used between the tiles and joints filled using Laterite Xtra SP-100 epoxy grout in Inca Gold colour. The joint depth shall be 6mm. Laterite product shall be as manufactured by Laterite India Pvt. Ltd/Laterite International Inc. over 20mm thick bed of cement mortar 1:4 (cement: 4 coarse sand) in levelling course laid to proper slopes over screed base preparation including movement joint in screed as per specification with 10mm thick compressible filler to edge of screed with two parts polysulphide sealant to top edge as per approved drawings and directions of engineer-in-charge.						
3.4.1	300*300 hazard warning and directional tactile tiles as per approved drawings	EACH	4295.00	18784.00	253.00	10,86,635.00	47,52,352.00
3.5	Providing and laying Unistone or equivalent make 100x300x22-25mm thick GRC yellow colored made with M40 grade concrete tile (as per specifications) with a smooth top surface laid on floor with 20mm thick cement mortar (1 cement: 4 coarse cement) including filling the joints with white cement and matching pigment of tile shade complete as per manufacturer specification complete.	EACH	100.00	400.00	69.76	6,975.78	27,903.11
SUB TOTAL OF FLOORING WORKS						2,25,33,309.54	1,27,47,734.23
4.0	FINISHING WORKS						
4.1	Painting Work-Anticarbonation Paint						
	Painting by providing and applying aliphatic water based acrylic anti-carbonation coatings of 300-400 micron (DFT) (bond by penetration of the polymeric binder into the concrete substance) of approved brand and manufactured at the locations & levels, prepared and applied as per manufacturer's at the locations & levels, prepared and applied as per manufacturer's specifications including preparation of surface by filling of pin holes with cement putty, honey-combining with GP -2 mortar, grinding of edges (if required any) etc complete. The material should have no electrostatic charge and should be single component, self-priming, fool proof system. The coating should be applied in two tip coats over exterior primer coat of approved brand and manufacture to achieve even shade and colour, all complete as per manufacturer;s specifications and as per directions of Engineer-in-charge. The rate comprises of all additions of expenditure on account of misc and ingencies at any height, including but not limited to scaffolding Hydraulic boom lift /skylift, airless spray machine sytem & safety PPE etc	Sqm	11760.00	37800.00	234.86	27,61,900.46	88,77,537.19
4.2	Providing and applying Duco Paint or equivalent of approved brand, colour and shade on MS work including applying primer, metal putty on surface, sandpapering with water proof sand paper to make surface smooth before painting.Two or more coats of Duco paint with spray macine applied on MS surface. Whole surface rubbed and cleaned to make surface smooth. Rates are inclusive of all activities and material.	sqm	10.00	40.00	2,245.71	22,457.14	89,828.55

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
4.3	Providing and fixing of solid grade compact HPL as per EN 438-6 in 6 mm thickness as per EN 438-6 Type EDS (Exterior Durable Standard) and EGS (Exterior General Standard). Manufactured using specially treated acrylic resins under high pressure and temperature and hardened into sheets, thus providing all-weather protection and UV resistance.Installed on aluminium substructure of aluminium tube channel having thickness 63 × 25 × 2 mm, powder coated with approved colour complete in all respects as per Engineer-in-Charge. (Used for: Facade cladding, Canopies, Fences, Pergola, Outdoor cladding, Balcony cladding, Railing gate elevation etc.) Including CNC cutting of HPL (High Pressure Laminate) acrylic solid surface as per design approved by Engineer-in-Charge.	Sqm	10.00	40.00	7,695.00	76,950.00	3,07,800.00
4.4	Providing and fixing 8mm thk High Pressure Laminate panel as per EN 438-6 type EDS manufactured using specially treated acrylic resins, hardened & competed under high pressure and temperature thus providing all weather protection and light fastness with fixing of power coated substructure Aluminium box section of 50mm x 25mm or 75mmx25mm suitable sized with maximum fastening gap between 340mm-600mm using special stainless steel screw fastener and HPL should be fixed to Aluminium channel using powder coated dome head blind rivet including scaffolding/ Boom-lift, all leading & lifting etc., complete as per direction of Engineer-in-Charge.	Sqm	10.00	40.00	9,367.00	93,670.00	3,74,680.00
4.5	Providing and fixing at locations ceramic art glazed hand made tiles of 8-10mm thickness. Tiles shall be square or rectangular of sizes such as 25x150mm, 50x50mm, 75x75mm, 100x100mm, 75x150mm, 100x200mm, 75x225mm etc of approved make and approved colours fixed over cement plaster surface with adhesive as per approved pattern and grout of permanent matching tile colour as per manufacturer specification complete as directed by the Engineer-in-charge at site. The Material of The Tiles shall be of Fine Quality of China Clay Mixed With Other Chemicals Like Quartz, Phelsphar and Welsonite Etc. The Contents are mixed and grind to make the Clay Ready To Provide Shape. To Shape A Particular Model Moulds & Dies Shall Be Used. The Tiles Shall Be Double Fired, First At 1130-1200 C For The Strengthening O The Tiles Called Bisquid And Secondly in 1050-1100 C For The Glazing Process Ensures That The Glaze Tiles Sustain The Extreme Weather Conditions.	SQM	229.07	458.90	2,628.46	6,02,111.19	12,06,198.98
SUB TOTAL OF FINISHING WORKS						35,57,088.78	1,08,56,044.72
5.0	SUSPENDE CEILING WORK						
5.1	CALCIUM SILICATE BOARD CEILING - Providing and installing suspended ceiling systems / vertical fascia as per controlled sample for concourse, 12mm thick Calcium Silicate Board panels with paint as per specification including supply of suspension system of galvanised steel as per manufacturer's recommendation, top fixing of SS expanding anchor bolts, rigid hangers, accessories inclusive of providing opening for electrical fixtures / fittings, fixed framing to support fixtures / fittings and providing secondary supporting system for cable tray and duct and all complete as per relevant drawings and the direction of Engineer-in-charge.	SQM	490.80	1980.86	1,379.94	6,77,275.80	27,33,473.00

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
5.2	50x150mm BAFFLE CEILING SYSTEM - Providing & installation of approved quality vertical linear baffle ceiling made out of folded Aluminium. The baffle units shall be in size of 50mm (W) x 150mm (H) and 1000mm x 4500mm x 1.1mm (thk), non-perforated. The ceiling baffle units shall be installed at a distance of 300mm c/c in one direction. The baffle units shall be attached to C-channel carriers spaced at 1200mm c/c. The C-channel carriers shall then be cross connected to perforated L-angle primary grid and suspended with M6 threaded rod hangers spaced at 1200mm and pertaining to Class A Fire Rated, as per ASTM E-84.	Sqm	2425.50	9056.16	4,817.00	1,16,83,633.50	4,36,23,522.72
5.3	Proma seal or equivalent acrylic intumescent sealant 2 hours fire rated in accordance with BS 476-Part 20, IS 1530 Part 4 to seal gap & joint in fire rated walls and floors and around service penetration for 25 mm gap and 12 mm depth.	RM	73.32	282.24	1,248.51	91,541.09	3,52,380.75
5.4	Bulkhead - Supply and Installation of two hours fire rated integrity, false ceiling constructed from 9mm thick , PROMATECH H or equivalent boards secured with M4 self tapping screws at Approx. x200mm centres. The Promotech H board suspended from M.S channel section 150x64x1.9mm at 610mm spacing. A cover strip of 100mmx9mm shall be fixed on the underside of the frame work at transverse joints. The butt joints of the boards shall have screws in the alternative position every 200mm considering the board with spacing shall be done at 610mm. The PROMOTECH H board shall have a density of 975 kg./m3 and shall be resistant to vermin, mould growth, minor impact, abrasion and short term water attack. The board shall be off-white in colour with a smooth surface suitable to receive most forms of decoration. The boards shall be Non Combustible, according to BS 476: part 4 or AS 1530: Part I and shall have surface spread of flame: Class 1 to bS 476 Part 7 or AS 1530: Part 3. All components shall be installed to manufactures instructions to meet the performance criteria of integrity in accordance with BS 476: Part 22: 1987. The rate includes complete work including fitting & fixtures. Jointing and painting for aesthetic look, if required shall be extra. Seal all gaps with fire rated sealant after the installation of light fixtures.	SQM	1316.00	5021.76	1,774.22	23,34,868.57	89,09,688.12
SUB TOTAL OF SUSPENDED CEILING WORKS						1,47,87,318.96	5,56,19,064.60
6.0	METAL WORKS						
6.1	SS Railing with SS handrail, balustrade and Toughened glass panels - Supplying, installation of factory prefabricated knock down SS railing system of SS Grade 304 of MATTE FINISH of required as per design comprising of 40mm OD & 2.77mm thick handrail, 25mm dia solid jointing pin/ 25x6mm thk SS flat fixed with SS circular/flat baluster, SS Spider/Patch/Stud fittings, SS base plate/ cover plate, pipe adjuster, M16X200mm SS fasteners for fixing railing in structural slab of floor/staircase with SS cover plate complete in all respect with 12mm thick clear toughened glass and fixed with SS brackets and hinges, making good the flooring after fixing the balusters complete as per specifications and approved architectural drawings. The all work shall be done as per direction and satisfaction of Engineer in charge.						
6.1.1	For height - 1050mm	RM	317.00	1139.00	13,452.24	42,64,361.39	1,53,22,106.05
6.1.2	Same as above but for height - 1800 mm glass barrier	RM	34.00	201.40	23,060.98	7,84,073.31	46,44,481.32
6.2	Fabricating and supply of stainless steel (conforming to grade SS 304 satin finish) bench as per drawing.	KG	216.00	864.00	449.41	97,072.29	3,88,289.18

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
6.3	Providing approved galvanized chicken wire mesh (24 gauge 12mm size) to junctions of concrete and masonry work and other locations where called for including cutting to required sizes side laps of minimum 75mm and fixing in position with galvanized wire nails as approved complete.	SQM	400.00	1600.00	52.57	21,026.84	84,107.35
6.4	Providing, Fabricating, Polishing & Erection of Required Height, Shape and Designing Comprising of 3 mm thick SS Grade 304 Sheet Cladding Over RCC Column on Aluminium Base frame of 25x35x5mm & 450 mm width Perforated (6mm perforations @ 12mm c/c) SS Grade 304 Matte Finished Sheet fixed on Frame 2 nos of 50 mm SS Grade 304 Dia Concentric Pipe, Bracing of 2 rings with 12 nos of 50 mm SS Grade 304 Dia pipe fixed on to the RCC Column with 3 nos. of 20 mm thick arched shape Plate to support the Frame as per Architectural Drawing (for payment purpose only SS item shall be measured. Aluminium base frame shall be paid extra as per DSR item no 21.1.1.).	KG	10.00	40.00	657.12	6,571.19	26,284.78
6.5	Providing and fixing Aluminium Composite panels (Fire rated – 2 hours) in all colours of approved brand for wall cladding at all heights and elevations including necessary Aluminium composite panel consist of 3 mm thermoplastic core of anti-oxidant LDPE sandwiched between two skin of 0.5 mm thick alloy sheet making a total sheet thickness of 4 mm. The surface shall be finished with PVDF base coating on the top side and service coating on the reverse side shall be with a polymer paint. Coating shall conform to ECCA of AAMA. The system shall be designed to withstand wind pressure of 200 kg/sqm and shall be fixed to the masonry/RCC walls with necessary clamps, brackets and anchor fasteners & supports. All clamps and brackets shall be hot dip galvanized minimum 80 micron thick and conform to IS: 4759 – 1996. The extruded aluminium sections shall be anodized in approved colour with anodic coating minimum 20 microns. Extruded section shall be of 6063 T5 or T6 alloy conforming to ASTM B 221. Items include cost of aluminium frame, ACP panels, clamps (110 mm size), weather sealant, gasket, foam, fixtures, scaffolding, all machineries and any other fastening strips, nuts, bolts, rivets, washers, etc. complete. Item shall include to provide EPDM gaskets (Make: OSAKA / Satya or equivalent), open cell polyethylene backer rods, weather sealant. The weather sealant shall be Dow Corning 991 or equivalent and the width of the gap filled with sealant shall be as specified.	Sqm	10.00	40.00	4,498.00	44,980.00	1,79,920.00
6.6	Fabrication, Supply & Installation of Stainless Steel Panel-jali (Conforming to SS-304 Grade, Scotch Brite Finish) consisting of 2 mm thk sheets with 19 mm dia perforations at a pitch of 25 mm, to be fixed between two balustrades with necessary arrangement for holding the panel-jali to the balustrade as per drawing /details.	SQM	10	40	12,541.61	1,25,416.09	5,01,664.34

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
6.7	Aluminum Perforated Sheets with aluminum framework: Supply & fixing of perforated horizontal and vertical panels of 2 to 3mm thick. The panel will consist of single skin of flat aluminum alloy AA3003/3105/5005 anodized natural or as specified. Both will be a maximum of 900mm and variable lengths up to maximum of 5000mm (Manufactured as per the project requirements). The perforation shall be customized as required. The panels will be coated on the exterior and interior surface with PVDF coating of 60 microns. The horizontal joints will have a recessed joint of width of 20 mm and will incorporate facilities for allowing adjustment of 1mm. The panels will be secured to aluminum rigid support system by means of fixing side extrusion fixed to the panel, fixed at appropriate centers to metal clamp. Things to be taken care by Installer: The panel needs to be fastened to a Suitable Aluminum substructure as per the load requirement. Installer will erect the secondary and primary substructure with the tolerances of span/1000 of plumb line and level per support (non-cumulative to a maximum of 2mm). Aluminum alloy for substructure will comply with IS8147. Anodic coating on aluminum sub-structure wherever applicable and its specified alloy will comply with IS1968-1961. The substructure will be fixed to the backing wall by means of Aluminum / MS brackets with wedge type RAWL PLUG stainless steel anchor fasteners/Hilti or equivalent chemical fastener. The brackets will allow for a vertical and horizontal alignment tolerance of 12.5mm. A Nylon/Rubber bush will protect joints between any two dissimilar metals.	Sqm	4352	17088	10,543.56	4,58,85,560.20	18,01,68,302.57
6.8	Structural Works: Providing, fabricating the required profile and shape, transporting, erecting and fixing in position structural steel (conforming to IS:2062 Grade B or equivalent) including procurement of all raw steel materials, bolts, nuts & washer incl. IS testing, allowance for all types of wastages, straightening, cutting, bending of section wherever specified, drilling holes, bolting, provision of necessary tools, testing etc. The rate shall also include required surface preparation for application of all coats of shop and site primers, primers and paints as specified. The rate shall also include preparation of complete detailed fabrication drawings based on the design drawings, required for all permanent and temporary structures and their approval from Engineer-in-Charge prior to execution. The rate should also include provision and installation of base plate, anchor bolts (measured in tonnes), grouting etc. as per drawings and specifications. Any temporary support, staging, braces, strutting, tying or anchor bolt, black bolts, fasteners, welding required to withstand the stresses of erection and carrying of plant and equipment's are to be included in the rate.	Mt	10	40	1,52,796.21	15,27,962.14	61,11,848.55
6.9	Metal Louvres				-		

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
6.9.1	Providing and fixing aluminum louvers of 84R sections with PVDF coating of approved colour. The system shall consist of panel 84 mm wide X 16mm deep X 0.8mm thick with round edges panel length upto 6 Mtrs. The panel shall be coil coated on a continuous paint line double baked and roll formed enamelled corrosion resistance Aluminium Alloy AA5050 (Al. Mg.) for higher strength and good roll forming characteristic. The Panel shall be clipped to Aluminium SL-4 panel stringer of Size: 33mm wide and 86mm deep X 0.95mm thick in a standard length of 5 Mtrs, made of double baked enamelled Aluminium Alloy AA 5050 (Al. Mg.) in white colour with clips to hold the panel in R module of 86mm C/C. The prongs on SL-4 stringers shall be to accommodate an angle of 21.30 Degrees between two panels. The first stringers shall be fixed at 150mm from both ends & thereafter at a distance of 0.75 to 1 Mtrs, depending on Wind Load. The Stringer shall be fixed to a suitable sub-structure with Nut/Bolt & Washer. All properties and specifications shall comply with ECCA directives and more specifically EN 1396:1998	Sqm	10	40	4,239.30	42,393.01	1,69,572.06
	SUB TOTAL OF METAL WORKS					5,27,99,416.47	20,75,96,576.21
7.0	GLASS WORK						
7.1	Providing & installing Fixed glazed wall assembly with specified fixing & finish using of 2 sheets 6mm thick toughened glass with nominal gap silicon sealant joint. Glass shall be 13.52mm (6mm toughened glass +1.52mm polyvinyl butyl layer +6mm toughened glass) clear toughened laminated glass with nominal gaps, silicon joint between panels, Glass held with SS patch fittings - all complete as per relevant architectural drawings and specification with cut out & holes. (Ticket offices, EFO,etc.)	SQM	56	261	7,885.38	4,44,972.08	20,58,084.60
7.2	Providing and fixing in position frameless glass partition walls made out of 12mm thick toughened clear float glass held in position by wall connecting profile (with or without open able glass door made out	SQM	35	118	13,142.31	4,63,660.56	15,50,792.12
	(i) Two Set of 350mm long pull handles of approved make						
	(ii) Two number corner locks of approved make						
	(iii) Floor spring of approved make.						
	(iv) Lock keeper Plate stainless steel strip at the bottom of doors for doors exceeding 1100mm						
	With open able Door (Double Leaf)						
7.3	Providing and fixing toilet mirror in 6 mm thick clear float glass with bevelled and polished at edge, fixed on wall with 6mm thick hard board backing fixed to wooden cleats with 8mm dia 38mm long stainless steel stud complete.	SQM	11	43	2,628.46	29,097.02	1,13,023.66
7.4	Providing and fixing SS handle 32x600mm long 'H' shape fixed to glass door	SET	4	16	2,948.59	11,794.35	47,177.38
7.5	Providing and fixing SS Lock fixed to glass door	EACH	4	16	2,312.22	9,248.86	36,995.45

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
7.6	Supply, providing and fixing in position annealed GRHIA rated Lacquered Glass of shades/color approved by Engineer-in-charge, from saint gobain/AIS or equivalent make fixed with compatible neutral core silicon / lacquered glass compatible double sided tape (SGG Glassmate /Ultrafix or equivalent) on perfectly levelled 12mm thick water proof marine plywood / MDF / Mineral fibre board mounted on the RCC /brick/block wall with GI /powder coated MS sections framing (the GI/powder coating thickness shall be paid separately) with approved dash fastners at required spacing to certain the guarantee of stability of MDF/Plywood/MFB. The lacquered glass shall be pasted on boards as specified above with approved adhesive of pidilite, toyo ferrous core or equivalent. Lacquered glass must be made industrially (via curtain coating process); opaque (if viewed against a support wall), coated with PU lacquer (min 60 micron thick) or more; must have pane to panel color consistency (measured by Minolta spectrophotometer CM5081 or equivalent); highly durable (passes PERSOZ hardness test for minimum 220 oscillations or more); humid resistant (conforms to BS EN 1036 1999); environment friendly (no lead, no arsenic, no copper, no formaldehyde); appropriate recycled content (12% post industrial / 6% post consumer or equivalent); compressive strength (1000 MPa) & tensile strength (40 MPa), same as float glass. The rates include required Aluminium trims on corners, required holes, angles, grinding, bevelling, polishing, necessary accessories, materials,labours,tools and plant.Nothing shall be paid extra.The work shall be done as per direction of Engineer-in-charge.						
7.6.1	6 mm thick Lacquered glass	SQM	10	40	5,138.60	51,385.98	2,05,543.90
7.6.2	8 mm thick Lacquered glass	SQM	469.97	1827.93	6,851.46	32,19,948.00	1,25,23,995.51
7.8	Supply, providing and fixing 6mm clear toughened glass in aluminium door, window, ventilator shutters and partitions etc. with PVC / neoprene gasket etc. complete as per architectural drawings and the direction of Engineer-in-charge (Cost of aluminium snap beading shall be paid in basic item.)	SQM	10.00	40.00	2,578.74	25,787.44	1,03,149.76
7.9	Providing & Fixing Lift canopy of using 2 sheets 6mm thick toughned glass with nominal gap silicon sealant joint. Glass shall be 13.52mm (6mm toughened glass +1.52mm polyvinyl butyl layer +6mm toughened glass) clear toughened laminated glass with nominal gaps, silicon joint between panels, with spider fitting as/ specification over and including providing and fixing frame of 100 mm SS Grade 304 Dia pipe pulled up with tension rod and fixed to the wall, Provide 75X 150 mm Gutter chrome finished As/ Architectural Drawing	SQM	10.00	40.00	34,100.74	3,41,007.35	13,64,029.41
SUB TOTAL OF GLASS WORKS						45,96,901.64	1,80,02,791.80
8.0	MISCELLANEOUS WORKS						
8.1	Providing and fixing 12mm thick counter tops for TOM/ SCR/ EFO/ PSB/ Wash Rooms with Wash Basins troughs or column cladding of solid Acrylic material over 12mm external grade ply/cement board with all necessary framework, fastners etc including making provisions for fixing fittings etc complete.	SQM	32.75	110.12	9,199.62	3,01,287.57	10,13,062.20
8.2	Providing & Laying on the wall opening with fire rated of 120 min with PROMATECH-H (9mm Thick) board to be fixed with G.I frame having perimeter angle 30x30x0.5mm thick angle on the wall/floor/ceiling on interval of 300mm centre. All sides of the board/Joints to be sealed with acrylic sealent fire rated-BS476 part 22 AS1530 Part 4.	SQM	10.00	40.00	6,844.57	68,445.67	2,73,782.70
8.3	Providing and fixing vinyl sheet 3M or equivalent of required colour on AFC gated, TOM counter glass etc. including cutting, pasting and completed in all respect as direction by Engineer in charge.	SQM	10.00	40.00	2,860.17	28,601.67	1,14,406.68

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
8.4	HDPE + SS Grating Saucer Drain Channel Supplying, providing and fixing HDPE Saucer drain with SS 316 grade grating on top of HDPE of Lidco/Thermodrain or equivalent make of specified dimensions as per architectural drawings and at required level and slope including the application of silicon sealant for joining with the connecting channel/tee/bends/end cap etc complete with provision of drain out the water to the main drain pipe.						
8.4.1	HDPE Polymer Base Channel + SS316 Grating 1.5 Ton Load - Heavy Pedestrian Load, 1Mtr Length X 140mm Channel Width x 100mm Channel Height.	RM	570.70	3262.75	3,026.58	17,27,271.63	98,74,987.75
8.5	Bicycle Stand: Supply and fixing of Factory moulded, pre fabricated MS epoxy painted bicycle rack one set of 5 bicycles for outer application . The size, color, shape and design shall be as per manufacturer's specification and approved by the Engineer-in-charge.	Set	4.00	16.00	11,250.27	45,001.06	1,80,004.26
8.6	Digital Ultraviolet printing over Glass/SS sandwich panels/ Metal sheets/ Tiles etc. designed as desired, and using original UV 8 colour inks with 29 picolitre SPECTRA Galaxy Print head or equivalent, double deposition of ink, on fixed vacuum table of size bigger than 2500x1500 for precision holding of glass/metal sheet etc including cost of transportation, loading/ unloading etc. complete as per architectural drawing and the direction of engineer-in-charge. Printing shall be smooth/textured as directed.	SQM	10	40	2,628.46	26,284.57	1,05,138.29
8.7	Providing and fixing approved make Glass Reinforced Concrete (GRC) stone wall cladding tiles on external façade. The tiles in approved design, size 205 mm × 60 mm, texture, thickness, pattern and colour. The thickness of the tiles should range between 12 to 18 mm (depending on texture of tiles), allowing variance ± 2 mm in accordance with IS: 1237 – 1980. The composition of tile should be 43 grade white Portland cement, reinforced with alkali resistant glass fiber and homogeneous pigmentation should be done with exterior grade synthetic inorganic iron oxide. The other additives should be fine washed graded quartz, super plasticizers and integrated waterproofing agent. The compressive strength of tile should be M40 grade at 28 days and water absorption of tiles less than 8% by 2 hours immersion. The tile should be applied on rough plaster 1:3 (1 cement : 3 coarse sand) as per approved pattern as shown in the drawings, pointed neatly with white cement mixed with matching pigment including curing and finishing in all respect at all heights, complete in all respect including the cost of scaffolding etc., complete as per drawings / specifications and directions of Architect / Engineer-in-Charge.	SQM	10	40	1,672.22	16,722.18	66,888.73
8.8	Providing & Fixing of Glass Reinforced Concrete (G.R.C) Jalli 40mm thick in approved size, pattern, design, thickness and color to be fixed on/between RCC/Block work Column or Structural Steel work with 'Dry fixing' method with Stainless Steel (SS – 304) 'L' shaped Clamps, dash fasteners and pins including anchoring, lifting, scaffolding etc. complete as per architectural drawing and manufacture specification. The Screens should be made from '53 grade' White Portland Cement manufactured by 'JK Cement' or equivalent, Quartz, Fine Silica Sand, Alkali Resistant Glass Fiber manufactured by 'Saint Gobain' or equivalent, Super Plasticizers manufactured by 'BASF' or equivalent, Polymers manufactured by 'BASF' or equivalent and U.V resistant Synthetic inorganic pigments should be used for pigmentation manufactured by 'BAYFERROX (Germany)' or equivalent. The material casting should take place in Synthetic Rubber / FRP Mould manufactured by 'Reckli' or equivalent. (All appropriate supporting structure steel work shall be paid extra as per DSR item no 10.25/10.26)	SQM	10	40	4,092.09	40,920.90	1,63,683.58

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
8.9	Providing and fixing precast cement concrete solid block (SIZE 400X200X100) with cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4graded stone aggregate 20mm nominal size) including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), including Lintels & mullions as required , cost of required centering, shuttering etc. complete up to any height including making Openings for duct of any size & shape & Finishing the same.	Cum	1424.81	5134.36	8,430.00	1,20,11,131.44	4,32,82,654.80
	SUB TOTAL OF MISCELLANEOUS WORK					22,54,535.26	1,17,91,954.18
9.0	SITE DEVELOPMENT WORKS						
9.1	Providing and laying 60mm thick Premium finish paving blocks of M/s UniStone/Hindustan Tiles or equivalent in approved design, size, thickness, pattern and color, made from high vibratory technology and the pieces should be casted in special plasticized P.V.C moulds/ rubber moulds. The composition of pavers blocks should be of M-30 Grade concrete mix design. The allowing variance should \pm 2mm in accordance with IS: 1237-1980. The top layer of 12 to 15 mm to be made from '43' Grade White Portland cement of JK or equivalent. The top surface of the paving blocks should be sealed with acrylic lacquer resulting in surface water absorption of tiles, less than 1% and water absorption by 24 hrs immersion method, less than 8%. The bottom layer should consists of 43 Grades Grey Portland cement of JK or equivalent, fine coarse aggregates, supper plasticizers, high strength additives and water proofing compound. The Laying should be done on 50mm thick compacted bed of course sand, filling the joints with coarse sand and as per the direction of engineer in charge.	SQM	8659	38183	1,314.23	1,13,80,557.00	5,01,81,189.27
9.2	Providing and fixing of Unistone/ Hindustan tiles or equivalent glass reinforced concrete (G.R.C) flooring / paving tiles in sizes of 152mm x 152mm /305mm x 305mm. The thickness of the tiles should range between 22 to 25mm, allowing variance of \pm 5mm in accordance with IS:1237-1980. The tiles should be made with M-40 Grade concrete mix design having '43' grade white Portland cement, reinforced with Alkali Resistant glass fiber and the pigmentation should be done with exterior grade synthetic inorganic iron oxide pigments manufactured by 'BAYFERROX (Germany)' or equivalent with high vibration technology. The pigmentation should be homogeneous and in accordance with British standard BS EN 12878:1999. The other additives should be fine washed graded quartz, super plasticizers and integrated water proffers agents and others. The top surface of the tiles should be sealed with acrylic lacquer resulting in surface water absorption of tiles less than 1%, and water absorption by 24 hours immersion method less than 8% and shall be laid over 20mm thick cement mortar bed 1:3 (1 cement : 3 coarse sand) as specified in the manufacturer's instructions.	SQM	2165	9546	1,314.23	28,45,139.25	1,25,45,625.88
9.3	Supply, placing & fixing in position precast bollard of Overall Dimensions: 950 mm Height X 150mm dia as per manufacturers specification. The bollard is reinforced with 4 Nos. 8 mm dia — 950 mm long & 4 Nos 12 mm dia — 450mm long & 4 Nos 4 mm dia - Stirrups at 150mm c/c. The bollard is manufactured with cement concrete of mix M — 30 grade by vibro compaction method using FRP/steel moulds, so as to achieve shuttering finish. The bollard should embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size), including necessary excavation of size 250x250x450mm deep for the same in bitumen/ concrete pavement at specified spacing. The Contractor shall submit the sample of bollards and get the approval of engineer-in-charge prior to execution of work.	EACH	886	3860	1,353.57	11,99,259.00	52,24,762.69

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
9.4	Supply and fixing of wire mesh fencing 2.5 mtr height with gate frame of 3 mtr x 2.5 mtr with complete material including painting e.g. angle, chain link, wire mesh and civil etc. complete as per specification & drawing. Angle iron size 50x50x6mm & MS strip 50 X 3 mm, Wire mesh 1"x3" of 8 SWG wire to be used for wire-mesh with providing support at 1.25m distance.	sqm	69	512	1,941.55	1,33,966.76	9,94,072.15
SUB TOTAL OF SITE DEVELOPMENT WORKS						1,55,58,922.00	6,89,45,649.99
10.0	ROOFING WORKS						
10.1	Supply and fixing of KALZIP/KINGZIP or equivalent Straight / curved "Self supported secret fix standing ROOFING SYSTEM in 0.9mm Thick AA 3004 ALUMINIUM ALLOY. The general roof-construction shall comprise from bottom to top: (1).Top layer – 65/400 profile sheeting manufactured from aluminium self-supported standing seam roof system from aluminium alloy AA 3004 H46 (AlMn1Mg1) as specified in BS EN 1396: 2007 minimum material thickness of 0.9mm and PVDF2 finish on the exposed surface. Accessories, Fasteners. The material properties shall be as follows: Ultimate tensile strength: minimum 200 N/mm2, 0.2% Proof Stress: min 185 N/mm2, Modulus of elasticity: 70,000 N/mm2. The panels shall be finished with PVDF. The fluorocarbon coating (2-coat system) shall consist of:- First coat - Inhibitive primer, with a dry film thickness averaging 5-Second coat – fluorocarbon colour coat, with a minimum dry film thickness of 20 microns. The inner side of the panels shall be finished with primer coating of 5-7 microns. The roofing system provider shall be certified with a British Board of Agreement and should have both Factory Mutual (FM-4471) & UL Certification (UL-90).	SQM	5600	22594	5,106.31	2,85,93,209.89	11,53,72,042.97
10.2	Flashings: Supply & Fixing of Flashings manufactured from aluminium alloy AA 3004 (AlMn1Mg1) as specified in BS EN 1396: 2007 minimum material thickness of 0.9 mm and PVDF finish on the exposed surface. The material shall be of the same colour. The girth shall be upto 570mm	SQM	204	828	2,607.89	5,32,010.12	21,59,335.18
10.3	Supply and fixing of Roof line system: Supply and fixing of horizontal anchorage life line system on KLIPLOK 700 roofing system shall be included with Aluminium grade 6062 clamp suitable for Kliiplok 700 system (no piercing allowed in roof panel), roof post, spring type shock absorber, tensioner, SS anchor post for intermediate, 8 mm dia SS 316 grade wire rope having 7 × 19 core, swage less wire termination and one set of PPE suitable for system. The system shall comply with EN 795:2022 type C and IS 16415:2013. The complete system shall be installed as per manufacturer's specifications. The rate is inclusive of all material, labour, erection, transportation, taxes etc. complete in all respect. The system supplier shall be approved by Engineer-in-Charge.	Rmt	680	2720	3,133.36	21,30,682.63	85,22,730.54

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
10.4	MULTI LAYERED TRANSLUCENT FACADE SYSTEM: Providing and Fixing of Multi cell Polycarbonate Panels 12mm thick with 3 cells - 4 walls. Panel Width shall be 600 – 900 mm to ensure best performance for wind uplift. The panels shall be uniform in color with an integral Multi-Cell core. In a cross section, the core shall be constructed of Microcell of max 4.5mm x 4.5 mm and soft filling DG both side. The appearance should be either rectangular or honeycomb like to give highest resistance to impact and hail damage. The weight of the panel only shall not be less than 1550 gram per square meter. panel should have co-extruded UV protection with U value 2.4 W/M2.K and UV transmission less than 0.1% with UV filtration test AS No.1067-1990. Panel and system should have impact and shock resistance with D1-10j -M 50 ,300 J -M 50 400 J. Polycarbonate panels also shall have Yellowness Index as per ASTM D 1925 and sample exposed to UV for minimum 2000 Hrs. Panel should have fire test – Bs1d0. Panels having Vertical Standing Seam 15mm on both sides, snap-on connector to interlock the panels. Panels shall have a grip-lock 2 tooth locking mechanism to ensure maximum uplift capability. Panels shall be fixed on structure with Expansion fastener, with aluminum connector on top of U/2 polycarbonate connector to give impact strength and seamless façade. Panels shall be manufactured with approved quality assurance as per ISO 9001 & ISO 14001. The panels shall be fixed over structural steel / MS framework (paid separately) and be secured with Snap-On connectors at all levels including all accessories like screws, trims & end caps etc. complete to make a water-tight screen system conforming to specifications and directions of Engineer-in-Charge.	sqm	2400	9683	2,801.60	67,23,325.02	2,71,27,849.67
10.5	Design, detailed engineering, Supplying, Fabrication and Installation of suitable MS structure using MS pipe, base plate and necessary hardware as applicable duly painted with necessary primer & PU paint as approved as per drawing including Design. Supply, fabrication and installation of Tensile membrane fabric MEHATOP N 900 type II or equivalent with 20 year manufacturer warranty. This should also include cutting, welding and cables, plates and necessary hardware for fixing the fabric as per approved shape as per drawing. Membrane shall be cut and manufactured with high frequency PVC welding machine. Note: Measurement for payment for above item will be made in sqm of plan area only.	Sqm	10	40	13,625.89	1,36,258.90	5,45,035.60
	SUB TOTAL OF ROOFING WORKS					3,81,15,486.57	15,37,26,993.96
11.0	METAL DOORS						
11.1	FIRE DOORS- ELEVATED						
	Fire check doors supply of approved make 2hrs fire rated door fabricated and successfully tested at CBRI Roorkee in both direction -satisfying two criteria (Stability and Integrity) confirming to BS:476 Part II, IS3614 Part II as per schedule of requirement.	SQM	108	420	9,178.53	9,88,527.40	38,54,981.51
	Clear Vision panel of 200mm x 300mm per leaf with fire rating of Saint gobain or equivalent make of glass	Each	30	114	688.39	20,651.85	78,477.02
	Heavy Duty Door Closer-with regular arm of Dorma or equivalent make	Each	15	57	1,682.73	25,240.97	95,915.68
	Eurofile Mortice lock -240 with double pin cylinder having master arrangement and ss handles- Dorma or equivalent make	Each	37	145	3,212.49	1,18,861.97	4,65,810.44
	Concealed SS finish flush bolts (300mm long)- Dorma or equivalent make	Each	37	145	214.16	7,923.93	31,053.23
	Magnum or equivalent make SS 4 Ball Bearing hinges	Each	208	808	107.09	22,273.89	86,525.51
	SS handles Dorma or equivalent make for double leaf door	Each	30	114	688.39	20,651.85	78,477.02
	Dorma or equivalent make Panic Bar for Double leaf door	Each	15	57	21,074.00	3,16,110.00	12,01,218.00

SCHEDULE-B (SUB HEAD - B2 - ARCHITECTURAL FINISHING WORKS (NDSR ITEMS))							
S. No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	Installation Charges for door including hardwares	SQM	108	420	841.36	90,614.44	3,53,371.06
	TOTAL OF FIRE DOOR WORKS					16,10,856.29	62,45,829.46
11.2	METAL DOORS						
	Supplying, providing & fixing in position door with shutter prefabricated from 18 gauge thick galvanised steel sheets press formed to provide a 46mm thick fully flushed double skin door with lock seam joints at stile edge and infill insulation kraft core. Door frames 57x120 mm approx. to be single rebated/double rebated made of 16 gauge galvanised Steel. Door shutter and frame to be primered in stoving grade epoxy zinc phosphate primer and finished in aliphatic grade u.v. resistance polyurethane paint. Door shutter and frames to have all hardware preparations, pre-punctured at the factory with and including heavy duty stainless steel 4 ball bearing hinges (hinges to be paid separately) all complete with and including filling of door frames with P.C.C. 1:5:10 (1 cement : 5 aggregate : 10 coarse sand. Provisions for EM lock wiring to be factory provided.						
	Single leaf door shutter	SQM	38	151	2,764.00	1,04,479.20	4,17,364.00
	Double leaf door shutter	SQM	40	204	3,793.00	1,51,340.70	7,73,772.00
	Extra for 250 x 150 mm vision panel with 6mm thick clear toughened glass.	Each	19	97	737.00	14,003.00	71,489.00
	Extra for air transfer grille appx. 400x400 mm	Each	22	88	1,431.00	31,482.00	1,25,928.00
	Heavy Duty Door Closer- dorma or equivalent make	Each	19	97	3,212.49	61,037.23	3,11,611.12
	Eurofile Mortice lock -240 with double pin cylinder having master arrangement and ss handles- Dorma or equivalent make	Each	41	185	1,682.73	68,991.98	3,11,305.27
	Concealed SS finish flush bolts (300mm long)- Dorma or equivalent make	Each	41	185	214.16	8,780.57	39,619.63
	Magnum or equivalent make SS 4 Ball Bearing hinges	Each	164	740	107.09	17,562.11	79,243.66
	SS handles Dorma or equivalent make for double leaf door	Each	2	8	688.39	1,376.79	5,507.16
	Dorma or equivalent make Panic Bar for Double leaf door	Each	2	8	6,720.00	13,440.00	53,760.00
	Installation Charges for door including hardwares	SQM	78	355	841.36	65,373.65	2,98,682.68
	TOTAL OF METAL DOOR WORKS					5,37,867.22	24,88,282.53
	GRAND TOTAL OF METAL DOOR WORKS					21,48,723.51	87,34,111.99
					TOTAL	18,84,38,186.43	71,26,53,514.34

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Schedule B3: for Plumbing works related to station & Entry/Exit under NDSR head

Sr. No.	Description	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1	SANITARY FIXTURES	₹ 3,66,605.07	₹ 14,49,703.77
2	SOIL WASTE & VENT PIPES AND FITTINGS	₹ 1,21,690.07	₹ 4,87,805.88
3	WATER SUPPLY SYSTEM	₹ 3,63,967.83	₹ 14,91,867.78
4	DRAINAGE AND SEWERAGE SYSTEM	₹ 77,447.85	₹ 3,13,338.07
5	RAIN WATER PIPES	₹ 9,08,947.26	₹ 36,35,925.27
6	PUMPS / WATER TREATMENT SYSTEM	₹ 9,09,830.49	₹ 39,73,517.83
7	TUBEWELL AND TUBEWELL PUMPS	₹ 1,74,749.57	₹ 6,98,998.28
8	SEWERAGE TREATMENT PLANT	₹ 53,71,297.31	₹ 2,14,85,189.25
	Total	₹ 82,94,535.46	₹ 3,35,36,346.11

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))							
S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1.0	SANITARY FIXTURES						
1.1	Providing and fixing C.P. brass towel rail 24"as per approved make.	Each	22	88	998.83	21,974.35	87,897.39
1.2	Providing and fixing C.P. brass twin Coat Hooks (Jaquar Cat. No. 1161 or equivalent) fixed on door with cp brass screw complete in all respects.	Each	12	48	319.20	3,830.45	15,321.79
1.3	Providing and fixing, ABS plastic body liquid soap dispenser with push lever assembly complete with soap refill as per approved make.	Each	18	72	1048.77	18,877.91	75,511.64
1.4	Providing and fixing Heavy Class SS grating with Coackroach proof SS strainer of approved design including setting 7in floor with cement mortar to match with floor finish as per architect requirement suitable for waster and FT.(size 100x100 mm)	Each	24	48	348.26	8,358.26	16,716.53
1.5	Providing and fixing grab bar 600mm as per approved make.	Each	2	8	1797.91	3,595.82	14,383.30
1.6	Providing and fixing in position of white vitreous china counter below rectangular wash basin (size 580 x 450 mm) with granite top C.I. bracket painted white, 32 mm dia C.P. brass waste, C.P. brass chain with rubber plug, 32 mm dia C.P. cast brass bottle trap with extension piece, wall flanges and rubber adapters for waste connection complete including cutting and making good the walls floors wherever required.	Each	2	8	3353.49	6,706.97	26,827.89
1.7	Providing and fixing testing and commissioning of storage type water heater (Geyser) (A. O. Smith make or equivalent) with automatic thermostatic control electric element, pressure release valve, M.S. nuts and bolts etc. conforming to IS: 2082, including cutting holes & making good the wall wherever required complete in all respects.						
1.7.1	25 Litres	Each	2	8	13695.74	27,391.48	1,09,565.92
1.8	Providing, Fixing, testing & commissioning of two way CP brass Bib Cock with CP brass stop cock and ABS Heath Faucet (complete with hook and flexible SS tube min. Length 1.0 m) . Fixture to be taken as approved by Engineer Incharge/Architect Incharge	Each	12	48	1596.04	19,152.51	76,610.05
1.9	Supply, Fixing solid state, no touch operting, fully hygienic hand drier (Jaquar - HDR-SAP-M99ACS) of approved shade with single blower, with time delay, summer & winter control, music while drying, volume ON/OFF controls including providing necessary brackets, cable from drier to Plug, Plug top key and lock etc. complete as required.	Each	8	32	21485.19	1,71,881.51	6,87,526.06
1.10	Providing and fixing testing and commissioning of Water cooler - storage capacity 80 liter, including providing necessary brackets, cable from drier to Plug, Plug top key and lock etc, complete as required (Blue Star SDLX 6080 B).	Each	2	8	42417.90	84,835.80	3,39,343.22
	TOTAL OF SANITARY FIXTURE					3,66,605.07	14,49,703.77
2.0	SOIL WASTE & VENT PIPES AND FITTINGS						
2.1	Providing, fixing and jointing UV stabilized SWR (Type - B) pipes conforming to IS:13592 including all fittings such as bends, clamps, tees, cowls, clean out plugs, offsets, Y-tees, tees, door fittings, clips, clamps, stays etc. conforming to IS-14735, including jointing with rubber gasket fixing in sunk areas, Fixing at wall / ceiling level supported by steel clamps & hangers etc. including Cutting, chases/ holes in floors / walls / slab and making good the same after pipe have been duly laid and testing complete in all respects.						
2.1.1	75 OD	RM	20	80	341.72	6,834.34	27,337.35

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))							
S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
2.1.2	110 OD	RM	140	560	633.30	88,662.21	3,54,648.86
2.1.3	160 OD	RM	0	1	1045.61	-	1,045.61
2.2	Providing, fixing and jointing UV stabilized SWR (Type - B) pipes conforming to IS:13592 including all fittings such as bends, clamps, tees,, offsets, Y-tees, tees, clips, clamps, stays etc. conforming to IS-14735, including jointing with rubber gasket fixing in sunk areas, Fixing at wall / ceiling level supported by steel clamps & hangers etc. including Cutting, chases/ holes in floors / walls / slab and making good the same after pipe have been duly laid and testing complete in all respects.						
2.2.1	50 mm OD	RM	30	120	294.65	8,839.62	35,358.48
2.2.2	63 mm OD	RM	10	40	420.50	4,204.96	16,819.83
2.3	Providing and fixing in position uPVC SWR floor trap conforming to IS:13592 including providing necessary steel support and as per Specification. Making proper connection cutting chase / hole in floors / slabs and bringing the same in proper condition and shape after placing the trap in right position complete as required. The hopper and trap shall be set in cement concrete mix 1:2:4 complete as required.						
2.3.1	110 mm inlet and 110 mm outlet	Nos.	12	48	618.98	7,427.74	29,710.95
2.4	Providing and fixing PVC inlet hopper with two or three inlets fittings to receive waste pipes from fixtures waste.	Nos.	12	48	476.77	5,721.20	22,884.80
TOTAL OF SOIL WASTE & VENT PIPES AND FITTINGS						1,21,690.07	4,87,805.88
3.0	WATER SUPPLY SYSTEM						
3.1	Providing & fixing full way lever operated Gun meteal brass ballwith SS ball						
(a)	20 mm dia	Nos.	8	32	431.67	3,453.36	13,813.45
(b)	25 mm dia	Nos.	10	40	696.25	6,962.45	27,849.81
(c)	32mm dia	Nos.	10	40	1113.98	11,139.79	44,559.15
(d)	50 mm dia	Nos.	10	40	2227.97	22,279.69	89,118.75
3.2	Providing and fixing 600mm long puddle flanges fabricated out of 6mm thick M.S. plates along with flanges of suitable size properly fixed in walls and top slabs of underground and overhead tanks.						
(a)	25mm dia pipe - 4.50 mm thck	Each	4	16	139.26	557.02	2,228.09
(b)	32mm dia pipe - 4.65 mm thck	Each	4	16	278.50	1,114.00	4,456.01
(c)	50mm dia pipe - 4.50 mm thck	Each	4	16	401.68	1,606.73	6,426.91
(d)	65mm dia pipe - 4.65 mm thck	Each	4	16	803.38	3,213.50	12,854.01
(e)	80mm dia pipe - 4.85 mm thck	Each	50	200	1004.22	50,211.11	2,00,844.46
(f)	100mm dia pipe - 5.40 mm thck	Each	40	160	1338.95	53,557.92	2,14,231.66

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))							
S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
(g)	150mm dia pipe - 5.40 mm thck	Each	16	64	2410.10	38,561.66	1,54,246.65
(h)	250mm dia pipe - 6.0 mm thck	Each	4	16	3925.76	15,703.06	62,812.23
3.3	Providing & fixing MS vent pipe complete with 2 Nos. bends & painting with enamel paint all complete.						
(a)	100 mm dia	Each	4	16	4455.94	17,823.75	71,295.00
3.4	Supply of Water Flow Meter						
(a)	80 mm dia	Nos.	4	16	17199.96	68,799.82	2,75,199.30
3.5	Providing & fixing cast iron double flanged type non return valve with swing type gunmetal gate. complete with bolts,washer,nuts,rubbergasket confirming to IS:5312(ISI marked)						
(a)	50 mm dia	Each	0	1	4543.25	-	4,543.25
(b)	65 mm dia	Each	12	48	5748.66	68,983.96	2,75,935.85
(c)	80 mm dia	Each	0	1	6798.76	-	6,798.76
(d)	100 mm dia	Each	0	1	9198.97	-	9,198.97
(e)	150 mm dia nominal bore	Each	0	1	15455.47	-	15,455.47
TOTAL OF WATER SUPPLY SYSTEM						3,63,967.83	14,91,867.78
4.0	DRAINAGE AND SEWERAGE SYSTEM						
4.1	Providing and laying cement concrete 1:5:10 (1 cement : 5 fine sand: 10 graded stone aggregate 40 mm nominal size) upto haunches of RCC pipes including bed concrete as per specifications.						
(a)	450mm dia RCC Pipe	Metre	30	120	1405.90	42,177.13	1,68,708.53
4.2	Providing and fixing Heavy duty G.I. pipes (IS:1239 medium class) complete with G.I. Fittings						
(a)	100 mm dia nominal bore	Metre	10	40	1274.13	12,741.29	50,965.14
(b)	150 mm dia nominal bore	Metre	10	40	2252.94	22,529.44	90,117.75
(c)	200 mm dia nominal bore	Metre	0	1	3546.65	-	3,546.65
TOTAL OF DRAINAGE AND SEWERAGE SYSTEM						77,447.85	3,13,338.07
5.0	RAIN WATER PIPES						
5.1	Providing and fixing SWR uPVC pipes as per IS:4985 class-4 including all fittings e.g. bends junctions, cowls, offsets, clean out plugs etc. jointing with solvent cement including cutting holes in walls, floors excavation, refilling and disposal of surplus earth wherever required and making good .						
(a)	110 mm dia	Metre	384	1536	661.44	2,53,991.77	10,15,967.07
(b)	160 mm dia	Metre	175	700	1129.92	1,97,735.36	7,90,941.43
(c)	200 mm dia	Metre	324	1296	1406.42	4,55,678.76	18,22,715.06
5.2	Providing and fixing cast iron gratings for water collection chamber.						
(a)	100x100 mm	Each	10	40	63.31	633.07	2,532.30
(b)	150x150 mm	Each	10	40	90.83	908.29	3,633.16
(b)	200x200 mm	Each	0	1	136.24	-	136.24

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))							
S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	TOTAL OF RAIN WATER PIPES					9,08,947.26	36,35,925.27
6.0	PUMPS / WATER TREATMENT SYSTEM						
	Suction And Delivery Pipes And Valves For Water Supply Pumps						
6.1	Providing and fixing G.I. suction & delivery headers / pipes for water supply pumps (IS:1239 heavy class) with G.I. Fittings (bends, tees, reducers, plugs, union, flange & blank flanges etc) and clamps and jointing with teflon tape or hold tite including chase cutting and making good the walls, floors etc. wherever required.						
(a)	50 mm nominal bore	Metre	80	320	1044.36		3,34,195.87
(b)	65 mm nominal bore	Metre	40	160	1197.53	47,901.29	1,91,605.15
(c)	80 mm nominal bore	Metre	80	320	1559.57	1,24,765.97	4,99,063.89
(d)	100 mm nominal bore	Metre	10	40	1879.84	18,798.40	75,193.62
6.2	Painting for G.I./MS Pipes with two or more coats of synthetic enamel paint of approved quality and shade over a coat of approved primer coat as directed including surface preparation (Shade as per pipe colour code)						
(a)	50 mm nominal bore	Metre	80	320	55.70	4,456.19	17,824.75
(b)	65 mm nominal bore	Metre	40	160	69.63	2,785.12	11,140.47
(c)	80 mm nominal bore	Metre	80	320	90.51	7,240.85	28,963.40
(d)	100 mm nominal bore	Metre	10	40	104.42	1,044.25	4,176.99
6.3	Providing and fixing lever operated gun metal ball valve with SS ball.						
(a)	50mm nominal bore	Each	12	48	2227.97	26,735.62	1,06,942.50
6.4	Providing and fixing C.I. wafer type Butterfly valves conforming to PN 10 / 13095 with nuts, bolts, washers, 3mm thick insertion ruber gasket and two matching flanges as per table 'E' etc. complete.						
(a)	50 mm nominal bore	Each	24	96	4107.81	98,587.42	3,94,349.67
(b)	65 mm nominal bore	Each	20	80	5291.42	1,05,828.31	4,23,313.25
(c)	80 mm nominal bore	Each	52	208	6266.16	3,25,840.38	13,03,361.51
(d)	100 mm nominal bore	Each	8	32	7171.27	57,370.14	2,29,480.56
6.5	Providing and fixing C.I. Double flanged horizontal type non-return valve of PN 1.6 to IS:5312 including nut, bolts, 3mm thick compressed asbestose, gasket, companion flanges as per table 'E'.						
(a)	50 mm nominal bore	Each	12	48	4525.55	54,306.65	2,17,226.59
6.6	Providing & fixing Cast Iron double flanged "Y" type strainer .						
(a)	80 mm dia	Each	6	24	5694.98	34,169.91	1,36,679.63
	TOTAL OF PUMPS / WATER TREATMENT SYSTEM					9,09,830.49	39,73,517.83
7.0	TUBEWELL AND TUBEWELL PUMPS						
7	Supplying and fixing tubebell MS fittings as specified below:						
7.1	Centring guide	Each	4	16	451.55	1,806.21	7,224.84

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))							
S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
7.1.1	Testing and overpumping (25% of tube well for 16 hr to record draw down recovering yield test as per IS 2800 Part II) including flushing of both borewells.						
7.2	By compressed air method/pump	Each	4	16	2990.81	11,963.23	47,852.90
(a)	Collecting sample of water for bacteriological and chemical test for any depth at any time during execution of work including hire and labour charges for tools and plants and sterilizing equipments, paying all charges and fees, testing etc. completed in all respects as per direction (As per 10500 all parameters).	Each	4	16	4233.36	16,933.42	67,733.68
(i)	Providing Sanitary sealing on top as per I.S with 1:2:4 PCC Block of size 1m x 1m x 1m	Each	4	16	3612.46	14,449.82	57,799.30
	Testing commissioning and lowering of submersible pumps set as per specifications (enclosed in cage) by using C class column pipes (pipes included in separate column of schedule) including binding submersible cable, along with column pipes with suitable size of clamps. The submersible pump set with direct coupled motor rated for 3 phase, 50 cycle 415+-10% volts A/c supply with the required duty. (provisional item)	Each	4	16	1975.57	7,902.28	31,609.10
(b)	Providing submersible pump set as per specification with direct coupled motor rated for 3 phase, 50 cycles 415+- 10% volts, Ac supply with the following duty (Provisional item)						
(i)	Total Head - 100 mtr (Approx.)						
7.3	Flow rate - 12000 ltr/hr (Approx.)	Each	4	16	30423.65	1,21,694.61	4,86,778.45
	TOTAL OF TUBEWELL AND TUBEWELL PUMPS					1,74,749.57	6,98,998.28
8	SEWERAGE TREATMENT PLANT						
	Supply, erection, testing and commissioning of underground sewage treatment plant based on attached growth aerobic moving bed bio reactor technology for the following including Motor control centre panel as approve by Employer in charge.	Each	2	8	2685648.66	53,71,297.31	2,14,85,189.25
	Incoming raw sewage Parameters:						
8.1	Flow : 10 m³/ day						
	COD : 400-600 ppm						
	BOD : 100-400 ppm						
	TSS(total suspended solids : 100-400 ppm						
	Oil & Grease <500 ppm						
	pH : 6.5-8.5						
	coliforms = 10 ⁶ to 10 ⁷ MPN/100 ml						
	Incoming raw seepage characteristic:						
	Flow : 10 m³/ day						
	COD < 50ppm						
	BOD < 20ppm						

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))

S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	TSS(total suspended solids < 30ppm						
	Oil & Grease <5 ppm						
	pH : 6.5-8.5						
	Treated Sewage parameters (after Ultra - Filtration)						
	Flow : 20 m ³ / day						
	COD : < 30 ppm						
	BOD : < 10 ppm						
	TSS = not detectable						
	Oil & Grease : <5 ppm						
	pH : 6.5-8.5						
	clour : clean (unobjectionable)						
	Turbidity <2 ppm						
	Total collforms <100 MPN /100 liters.						
	E -coli = NIL						
8.2	Treated Sewage shall be re-circulated for any or all the following applications: Toilet flushing Air conditioning make-up water , horticulture & floor washing.						
	STP plant supply , installation & commissioning shall be complete with MS Epoxy Bar Screen , MS Epoxy prefabricated Bio - reaction cum secondary settlement tank , with required plastic media , Hypo-chlorite chlorine dosing pump with dosing tank of 100 liter capacity , sewage feed pumps (1w+1s), Air blower or Air compressor as required , HDPE Air Grid as require , Tretuary Treatemnt Equipment including Ultra Filtration (UF) Feed pumps (1w+1st), 1noDual Media Filter , 1no. Sand fliter , 1 Set PLC operated Ultra _ Filtration arrangement complete with backwashng & chemical cleaning arrangement + Ultra Violet (UV) Purufier. In case of the STO plant sludge generation is more than 5 liter per month then a set of sludge Dewatering Centrifuge or Filter Press arrangement complte with DWPE - Dosing arrangement shall be provided.						
	1 set fixed speed Hydro oneumatic System for transfer of final STP Treated water shall be in scope of in the scope of this work.						
	STP plant supplies shall also include Electrica Starter Panel for all STP drivers ,interconnecting power % control cabling between the Electrical Panel , drivers & level controllers , necessary instrumenttation, PLC for UF , Pressure gauges , all interconnceting MS C- class piping , fitting , puddle flange & valves for the STP plant Including supply of plot plan , hydraulic & civil GA drawing & civil Structural drawing for STP work.						
	the above STP plant shall be fully Skid mounted on prefabricated MS- Epoxy Painted Skid						
	Obtaining statutory permission for consent to establist & consent to oprate includng all the costs fees for obtaining such permission from pollution control Board.						

SCHEDULE-B (SUB HEAD - B3 - Plumbing WORKS (NDSR ITEMS))							
S.No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	the scope includes all the pipes and Electrical Cable from inlet bar screen chamber to outlet points. Inlet and outlet point of the STP are defined as below.						
	The operation & maintenance of STP including consumables for 12 months may be included in the scope						
	<u>Termination points of the work</u>						
	a) seepage water line shall be provided at a point one meter away from the STP plant , Further discription of service water line , with in the STP plant area , shall be in scope of this work .						
	b) any drain water line from the STP plant , up to the nearst drain at the Site up to the maxium lengthe of 50 running metres shall be in the scope of this work.						
	c) one no. Incomming electrical supply cable (of required rating) up to the MCC panel of the STP plant shall be porivided by in this STP Vendor, MCC Panel and outgoing electrical power & control cabling , cable trays + cable supplots between the STP distribution panel & STP drives , motors , instruments shall in the scope of this work.						
	d) the scope of subjected work include the GI earting /wiring of the STP Electrical Panel from the STP plant to connect with existing earthing pit .						
	Floowing civil works releted to above sewege Treatment Plant is included in the scope of this work : Constrution of RCC underground tanks of bar screen chamber , oil & Grease chamber & equalization tank for storage / homogenization of raw sewage RCC platform for mounting the prefabricated STP Plant and all point described above						
	TOTAL OF SEWERAGE TREATMENT PLANT					53,71,297.31	2,14,85,189.25
	TOTAL COST FOR SCHEDULE B 1.3					82,94,535.46	3,35,36,346.11

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Schedule B4: Diversion of Utilities

Sr. No.	Description	Amount
1	Items for Civil Utilities	₹ 10,52,55,948.52
2	Items for Electrical Utilities	
3	Items For Telecom Utilities	
	Total of Diversion of Utilities	

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
1	Taking out and transportation of C.I/M.S/P.S.C/H.S. pipes including dejointing and transportation upto all lifts and a lead of 5km.(The Scrap shall be the property of NMRC)		
A)	For pipe line		
a)	upto 300mm dia pipe line	metre	345.75
b)	upto 400-600 mm dia pipe line	metre	631.56
B)	for interconnection point/Y-Tee/Valve		
a)	upto 300mm dia	each	13,027.52
b)	upto 400-600 mm dia	each	33,476.83
2	Providing and laying S&S NP-3 RCC, pipes manufactured by using sulphate resistant cement including jointing with rubber ring and filling joints with cement mortar 1:2		
a)	150 mm diametre	metre	491.08
b)	250mm dia pipe	metre	729.70
c)	300mm dia pipe	metre	866.80
d)	400mm dia pipe	metre	1,539.57
e)	450mm dia pipe	metre	1,595.02
f)	600mm dia pipe	metre	2,450.57
g)	900mm dia pipe	metre	4,268.47
3	Providing and laying S&S NP-4 RCC pipes manufactured by using sulphate resistant cement including jointing with rubber ring and filling joints with cement mortar 1:2		
a)	600 mm dia pipe	metre	3,635.88
b)	450 mm dia pipe	metre	2,243.61
c)	400 mm dia pipe	metre	1,773.61
d)	300 mm dia pipe	metre	1,256.31
e)	250 mm dia pipe	metre	721.26
4	Plugging of water main with baloon of adequate size by inflating with air compressor including transportation of air compressor at site		
a)	400 mm dia	job	15,470.24
b)	600 mm dia	job	23,204.61
5	Plugging the total sewerage from the existing sewer line so as to reduce the drainage of sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same after completion of the job to the entire satisfaction of the Engineer-in-charge, including pumping & bailing out of the water complete.		
a)	250 mm dia pipe	job	1,891.69
b)	300 mm dia pipe	job	2,724.04
c)	400 mm dia pipe	job	4,413.42
d)	450 mm dia pipe	job	5,463.79
e)	600mm dia pipe	job	9,711.27
f)	700mm dia pipe	job	12,632.71
6	Plugging the total stormwater drain from the existing storm water line so as to reduce the drainage of storm line sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same after completion of the job to the entire satisfaction of the Engineer, including pumping & bailing out of the water complete.		

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
a)	150 mm dia pipe	job	680.64
b)	250 mm dia pipe	job	1,890.23
c)	300 mm dia pipe	job	2,724.04
d)	400 mm dia pipe	job	4,843.08
e)	450 mm dia pipe	job	5,463.79
f)	600 mm dia pipe	job	9,711.27
g)	900 mm dia pipe	job	21,851.39
7	Providing lead caulked joints including the cost of pig lead supply and fixing of rubber gaskets welding, and cutting of MS pipes and specials, including the cost of H/P of T&P at site (For watermain at interconnection point / Y-tee/ valve) including cost of dewatering.		
a)	upto 300 mm dia	each	18,949.06
b)	400 - 600 mm dia	each	23,686.52
8	Supply and installation of MS pipe with 750 Micron PU coating internally and 250 micron anti corrosive bituminous paint externally with a tolerance of 6" in gradient by trenchless technology method at an average depth of 5 mtrs below the road level including excavation & filling of pits, dewatering arrangements, supporting systems for soil, including the approval from the concerned department. The firm will also supply the test certificate w.r.t M.S. Pipe, design of PU coating etc. The work also involves under ground mapping of services, barricading, installation of flickering lights etc, clearing site in all respects after submitting CCTV survey report from u/s to d/s, connection manholes along with the site of drawing showing work complete in all respect.		
a)	250 mm dia (6mm thick)	mtr	18,949.06
b)	600 mm dia (10mm thick)	mtr	69,479.88
9	Providing and laying of 100 mm GI pipe, medium class, Jindal make, with all accessories like bends, sockets, etc all complete	Mtrs.	734.19
10	P/L of MS pipe of 12 mm wall thickness on agreed line and grade (as per IS: 3589 and made from steel conforming to IS: 2062) the steel pipe surface internal and external shall be blasted to near white and then coated with solvent less P.U. coating of nominal 750 microns and nominal 1000 microns on exterior and interior surface respectively all approved/used by railway/DDA's/RDA's project for sewer and water lines with design and construction of Man holes at approximate 30 meter interval or required distance with trenchless construction technique below the water table preferably without the need of dewatering, Accuracy of level at required gradient/slope to be achieved by use of Laser/CCTV controlled by suitable equipment. In the last pit, the equipment to be positioned at surface in a single traffic lane. The work shall be done in such a manner that it will not disturb the smooth movement of traffic. The item includes excavation of trenches and recovery pit and backfilling after work completed at the site of work mobilization and demobilization of equipment consumable etc as needed to complete the work		
	and cleaning of site complete including disposal of surplus earth within 10 km lead and making water and manhole connections. Traffic control arrangement and lighting display of sign board. Insurance of work man etc complete including removal of all hindrances, unforeseen items permission of other dept. (dept. shall only assist in getting permissions etc.) nothing extra shall be paid on this account to complete the job.		

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
a)	900mm dia pipe by trenchless technology	per metre	85,270.77
b)	1100 mm dia pipe by trenchless technology	per metre	1,03,058.29
11	Providing and laying MS pipes/barels made out of required thickness MS plate Including painting with epoxy paint of approved quality outside and inside tested to a head of 15kg/cm square suitable for welding joints conforming to IS 3589-1981, IS 784-1974 including testing of the specified head as directed by the Engineer.		
a)	Pipes made up of MS sheet(6mm to12mm th.)	Kg	90.52
12	Providing and laying MS special such as tees, bends, collars, tails pieces etc made out of required thickness MS sheet including painting with epoxy paint of approved quality outside and inside tested to a head of 15kg/sqcm suitable for welding joints conforming to IS 3589-1981, IS 784-1974 including testing of the specified head as directed by the Engineer.		
	Specials made up of MS sheet(6mm to 12mm thk)	Kg	106.40
13	Providing H.S. Pipe, made out of 6 mm thick MS plate with inside cement mortar lining of 25 mm thick and 25 mm thick outside coating as per IS :1916 of following diameter		
a)	300 mm dia pipe	mtr	7,034.27
b)	400 mm dia pipe	mtr	9,406.29
c)	600 mm dia pipe	mtr	12,269.06
14	Laying H.S. Pipe, made out of 6 mm thick MS plate with inside cement mortar lining of 25 mm thick and 25 mm thick outside coating as per IS :1916		
a)	300 mm dia pipe	mtr	245.39
b)	400 mm dia pipe	mtr	327.17
b)	600 mm dia pipe	mtr	405.70
15	Providing and fixing IVC brand 400 mm dia D/F non- return / check valve of PN 1.0 rating having Body/Door of CI Gr. 20, TRUNNION shaft AISI 410, Face & Seat ring of GM i.e. metal to metal seat & not Rubber to metal, generally conforming to IS: 5312, Falnge flat face drilled to ISI 538 Part IV & VI/BS 10 Table "D"	Each	1,84,824.31
16	Providing and fixing CI D/F Sluice Valve with S&S (IS 6603 12 Sr 12) stain ang gun metal Parts confirming to IS 14846 of approved make/ of approved brand (withcap) in the existing pipe with bolts, nuts, rubber insertions etc. complete and as per the direction of Engineer		
a	400 mm dia	Each	1,16,947.31
b)	600 mm dia	Each	2,68,491.58

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
17	Supply and installation of 450 mm dia MS pipe of 10 mm wall thickness confirming to IS 2062 suitable for welding joints with 750 Micron P.U. coating internally and anti- corrosive bituminous paint on external surface, with tolerance of 6" in or gradient by trenchless technology method at an average depth of 4-4.5m below the road level including interconnection with existing chambers (with required excavation and its restoration including dewatering arrangement) including thrust pit and receiving pit and the supporting system of soil should be got approved from the department before execution. The trenchless has to be carried out below existing deep nallah below road, in sub-soil and existing services. The firm will also supply the test certificate w.r.t MS pipe design and P.U coating etc, during the execution of work. The work also involved necessary number of thrust pit and receiving pit as per the site condition to perform boring including road cutting under ground mapping of service. Dewatering of pit and making good by back filling in layers of 20 cm each as per the relevant CPWD specifications and disposal of surplus earth as per direction of Engineer-in charge. The firm has to make connections in the u/s and D/S manholes at the same existing invert level including necessary plugging in the existing line by dismantling and restoration of the connection manholes complete.	Mt	31,567.81
18	Providing and Laying mild steel pipe 1100mm internal dia. made from 12mm thick MS Plate conforming to IS 2062, Interior lining with cement mortar and exterior surface treated with coating and wrapping confirm to IS3589 2001, IS: 10221-1982, 11909-1986, specifications i/c all lead and lift complete as per direction of the Engineer-in-charge	Meter	34,779.88
19	Providing and laying of precast box drain of approved M25 grade of concrete of internal size 1.40m x 2.10m as per approved design i/c providing & fixing reinforcement as per the approved drawing, centring & shuttering, loading, unloading and transportation at site and placing in the final position and jointing with cement mortar (1cement:2 fine sand) complete as directed by the Engineer-incharge. (The rate includes all labour, material, Tools & Plants, machinaries, carriage, shifting, work at any level, scaffolding, all lead and lift,etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)	Metre	50,453.09

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
20	<p>Providing & laying of 1800 mm diameter MS pipe made up of 14 mm thick M.S plate as per I.S 2062 through trench-less technology by specialized laser guided Tunnel Boring Machine with steering kit to cross the carriage way i/c maintains levels with the help of laser guided equipment, excavation of receive and thrust pit side shoring, providing thrust bed & blocks, welding, cutting the steel pipe surface internal & external painted shall be blasted to near white & coated with 750 micron PU coating paint each face of metre 120 pipe, filling back compaction, disposal of surplus earth, i/c generator, JCB, cranes, trench less machine, jacks, hydraulic technology testing etc. all material, labour and T&P complete job as per direction of Engineer-in-charge. Deploy of sign board, insurance of workman etc complete ilc removal of all hindrances unforeseen items, permission of other deptt. (deptt. shall only assists in getting permission etc.) nothing extra shall be paid on this account to complete the job.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding, coating, primer, painting, testing, all lead and lift, excavation, backfilling, dewatering, restoration, barricading, support for soil etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	1,74,503.64
21	<p>Providing & laying of 1400 diameter MS pipe of 14 mm wall thickness on agreed line and grade (as per IS: 3589 and made from steel conforming to IS: 2062) the steel pipe surface internal and external shall be blasted to near white and then coated with solvent less P.U. coating of nominal thickness 750 microns and nominal thickness 1000 microns on exterior and interior surface respectively of a approved make/used by railway/IDDA's/RDA's in sewer and water lines projects with design and construction of Man holes at required distance. Pipe to be laid with trench less construction technique. Accuracy of level at required gradient/slope to be achieved by use of laser/CCTV controlled by suitable equipment. In the last pit, the equipment to be positioned at surface in a single traffic lane for the work. The item includes excavation of trenches and recovery pits, excavated earth taken out and their backfilling after work completed at the site. Work includes mobilization and demobilization of equipment consumable etc as needed to complete the work and cleaning of site complete including disposal of surplus earth at any lead and making water and manhole connections, traffic control arrangement and lighting display of sign board. Insurance of work man etc complete including removal of all hindrances, unforeseen items permission of other dept. (dept. shall only assist in getting permissions etc.).</p>	Metre	1,44,830.36

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
	<p>Nothing extra shall be paid on this account to complete the job. The firm will also supply the test certificate w.r.t. MS pipe design & PU coating etc. during the execution of work. Dewatering of pit and making good by back filling in layers of 20cm each as per relevant CPWD specifications and disposal of surplus earth as per direction of engineer-in-charge. The firm has to make connections in the U/s and D/s manholes at the same existing invert level including necessary plugging in the existing line by dismantling and restoration of connection manholes complete.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding, coating, primer, painting, testing, all lead and lift, excavation, backfilling, dewatering, restoration, barricading, support for soil etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>		
22	<p>Providing & laying in position of 2000 mm diameter non-pressure NP-4 class (heavy Duty) CC pipe with rubber ring joined with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) RCC pipes conforming to IS: 456-1988- complete as directed by Engineer in charge.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, carriage, testing, shifting, work at any level, scaffolding, all lead and lift, etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	24,560.67
23	<p>Providing and Laying mild steel pipe 600mm internal dia. made from 8mm thick MS Plate conforming to IS 2062, Interior lining with cement mortar and exterior surface treated with coating and wrapping confirm to 1535892001, IS: 10221-1982, 11909-1986, specifications i/c all lead and lift complete as per direction of the Engineer-in-charge.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, testing, coating, wrapping, all lead and lift etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	11,188.36
24	<p>Providing and Laying mild steel pipe 900mm internal dia. made from 10mm thick MS Plate conforming to IS 2062, Interior lining with cement mortar and exterior surface treated with coating and wrapping confirm to IS3589 2001, IS: 10221-1982, 11909-1986, specifications i/c all lead and lift complete as per direction of the Engineer-in-charge.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, testing, coating, wrapping, all lead and lift etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	20,978.19

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
25	<p>Providing and Laying mild steel pipe 1500mm internal dia. made from 12mm thick MS Plate conforming to IS 2062, Interior lining with cement mortar and exterior surface treated with coating and wrapping confirm to IS3589 2001, IS: 10221-1982, 11909-1986, specifications i/c all lead and lift complete as per direction of the Engineer-in-charge.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, testing, coating, wrapping, all lead and lift etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	41,956.36
26	<p>Providing & Laying of 800mm dia made up of 10mm thick M.S plate as per I.S 2062 through trench-less technology by Specialized Auger boring machine with steering kit to cross the carriage way ilc maintain levels with the help of laser guided equipment, excavation of thrust & receiving pit side shoring, providing thrust bed & blocks, welding, cutting the steel pipes surface internal & external painted with 250 micron epoxy coating on each face of pipe, filling back compaction, disposal of surplus earth, ilc, generator, JCB, Cranes, trenchless machine, jacks, hydraulic technology, testing etc. all material, labour and T&P complete job.as per direction of Engineer-In-Charge. Deploy of sign board, Insurance of work man etc complete ilc removal of all hindrances unforeseen items permission of other department (deptt. shall only assist in getting permissions etc) nothing extra shall be paid on this account to complete the job.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding, coating, primer, painting, testing, all lead and lift, excavation, backfilling, dewatering, restoration, barricading, support for soil etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	67,820.68
27	<p>Providing and laying mild steel pipe 800mm internal dia. Made from 10mm thick MS plate conforming to IS 2062, interior lining with cement mortar and exterior surface treated with coating and wrapping confirm to IS3589-2001, IS:10221-1982, 11909-1986, specification i/c all lead and lift complete as per direction of the Engineer-in-charge.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, testing, coating, wrapping, all lead and lift etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	14,917.81
28	<p>Pumping out water by deploying (below mention pumps) I/c. Disposal of pumped water for any lift into municipal drain.</p> <p>(The rate includes all labour, material, Tools & Plants, work at any level, scaffolding etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)</p>		
a	25H.P Submersible pump/Diesel pump of discharge capacity 250-300 KL/Hrs.	Shifts	3,668.52
b	10 H.P Submersible pump/Diesel pump of discharge capacity 100-120 KL/Hrs.	Shifts	1,391.75

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
29	Taking out and transportation of CI / MS / PSC / HS pipes including dejointing and transportation up to all lifts and leads of 5.0km For interconnection point/ Y-tee/ valve The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting to designated location, work at any level, at any lead etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid to complete this job.		
a	800 mm dia.	Each	39,938.84
b	900 mm dia.	Each	44,931.20
30	Providing lead caulked joints including the cost of pig lead supply and fixing of rubber gasket ,welding and cutting of M.S. pipes and specials including the cost of HP of T & P at site (For watermain at interconnection point/y-trr/valve)including dewatering. The rate includes all labour, material, Tools & Plants, machinaries, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be payable.		
a	800mm dia.	Each	28,258.61
b	900mm dia.	Each	31,502.42
31	Providing /Laying of 1600 mm diameter MS pipe made up of 14 mm thick M.S plate as per I.S 2062 through trench-less technology by specialized laser guided Tunnel Boring Machine with steering kit to cross the carriage way i/c maintains levels with the help of laser guided equipment, excavation of receive and thrust pit side shoring, providing thrust bed & blocks, welding, cutting the steel pipe surface internal & external painted shall be lasted to near white & coated with 750 micron PU coating paint each face of pipe, fillinh back compaction, disposal of surplus earth, i/c generator, JCB cranes, trenchless machine, jacks, hydraulic technology testing etc. all material, labour and T&P complete job as per direction of engineer-in-charge. Deploy of sign board, insurance of workman etc complete i/c removal of all hindrances unforeseen items, permission of other deptt. (deptt. shall only assists in getting permission etc. nothing etc shall be paid on this account to complete job. The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding, coating, primer, painting, testing, all lead and lift, excavation, backfilling, dewatering, restoration, barricading, support for soil etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.	Metre	1,65,520.42
32	Providing & Laying in position of 1600 mm diameter non-pressure NP-4 class (Heavy Duty) RCC pipe with rubber ring jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement : 2 mortar) - RCC pipes conforming to IS : 458-1988 - complete as directed by Engineer-in charge. The rate includes all labour, material, Tools & Plants, machinaries, carriage, testing, shifting, work at any level, scaffolding, all lead and lift, etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.	Metre	17,339.15

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
33	<p>Supply and installation of 200mm dia MS pipe of wall thickness 8mm conforming to IS 2062 suitable for welding joints with 750 micron PU coating internally and 250 micron anti corrosive bituminous paint externally with a tolerance of 6" in gradient by trenchless technology method at an average depth of 5mtrs below the road level including excavation & filling of pits., dewatering arrangements, supporting system for soil, including the approval from concerned department. The firm will also supply the test certificate w.r.t. MS pipe, design of PU coating etc. The work also involves under ground mapping of services, barricading, installation of flickering lights etc, cleaning site in all respect after submitting CCTV survey report from U/s to D/s, connections alongwith the site of drawing showing work complete in all respect.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding, coating, primer, painting, testing, all lead and lift, excavation, backfilling, dewatering, restoration, barricading, support for soil etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)</p>	Metre	14,417.00
34	<p>Providing lead caulked joints including the cost of pig lead supply and fixing of rubber gasket ,welding and cutting of M.S. pipes and specials including the cost of HP of T & P at site (For water mains at interconnection point/y-tee/valve)including dewatering.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be payable.</p> <p>a) 1100mm dia.</p>	Each	38,855.59
35	<p>Taking out and transportation of CI / MS / PSC / HS pipes including de-jointing and transportation up to all lifts and leads of 5.0km (scrap shall be the property of NMRC).</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting to designated location, work at any level, at any lead etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid to complete this job.</p> <p>a) 1100mm dia.</p>	Each	54,915.91
36	<p>Providing and Fixing 900 mm dia. IVC brand double flanged cast iron gear operated butterfly valves generally conforming to BS:5155 having body, disc and end cover in graded cast iron to IS 210 Gr. FG 260, synthetic rubber face ring secured on disc by SS retaining ring with stainless steel screws, the rubber seating on a corresponding SS AISI-304 seat in body, stub shift of stainless to AISI-40, valve suitable for a working pressure of 10 kg/cm2 (seat test) & body tested 15 kg/cm2, Flanges drilling to IS:1538.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, testing, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Each	5,33,917.46

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
37	<p>Providing and Fixing 1100 mm dia. IVC brand double flanged cast iron gear operated butterfly valves generally conforming to BS:5155 having body, disc and end cover in graded cast iron to IS 210 Gr. FG 260, synthetic rubber face ring secured on disc by SS retaining ring with stainless steel screws, the rubber seating on a corresponding SS AISI-304 seat in body, stub shift of stainless to AISI-40, valve suitable for a working pressure of 10 kg/cm² (seat test) & body tested 15 kg/cm², Flanges drilling to IS:1538.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, testing, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Each	7,71,823.65
38	<p>Supply & Fixing of 500mm dia. C.I. sluice valve double flanged with hand wheel and cap confirming to I.S. 2906/84 and I.S. 780/84 with latest amendments Of class P.N. 1.0 bearing I.S.I. mark tested to a pressure of 1.50 for body and 1.00 for seat M.P.A. (Gauge) inside screw, no rising stem of stainless steel as per I.S. 6603/72 wedge nut of high tensile brass body seat ring and wedge facing ring shall be of leaded tin bronze bonnet gasket shall be of compressed fiber board back seat bush stem locking arrangement spur gear arrangement Gear ration(1:4) by-pass arrangement with S/Valve flanged to be machined and drilled to I.S. 1538/76 without pair of tail peace at site. Material of body and other part of S/valve shall be as per I.S. Code,the rates are inclusive of all charge i.e. Sale tax, excise duty. Railway freight T.T. charges,octroi Charges insurance local artage loading, unloading and staking in the alignment complete in all respect make of the s/v will be IVC- 500 mm dia.</p> <p>(The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, testing etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)</p>	Each	2,00,199.90
39	<p>Providing and Fixing 150mm dia. IVC brand cast iron temper proof kinetic double orifice air release valve, having flots of SS to AISI-304, with built- in- kinetic features, DI isolation sluice valve mounted in a horizontal position, inlet faced and drilled to iS 1538 Table 4 &6, valves suitable for a maximum working pressure of 10 Kg/Cm².</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, testing, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Each	74,821.32
40	<p>Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory -900mm Dia. Line</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, testing, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	67.92

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
41	Disinfecting C.I. water mains by flushing with water containing bleaching powder @ 0.5 gms per litre of water and cleaning the same with fresh water, operation to be repeated three times including getting the sample of water from the disinfected main tested in the municipal laboratory.- 1100 mm dia. Line (The rate includes all labour, material, Tools & Plants, machinaries, consumables, etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)	Metre	83.02
42	Provide & Fixing of 1100mm N.B.D.m Joint 300mm long and 22mm thick. C.I Dismantling Joint with rubber 'O' Ring with Stud-Bolt, Flange Drill Hole, O/D/ P.C.D as per IS:1538 (The rate includes all labour, material, Tools & Plants, machinaries, consumables, etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)	Each	2,18,703.81
43	Provide & Fixing of 900mm N.B.D.m Joint 300mm long and 22mm thick. C.I Dismantling Joint with rubber 'O' Ring with Stud-Bolt, Flange Drill Hole, O/D/ P.C.D as per IS:1538 (The rate includes all labour, material, Tools & Plants, machinaries, consumables, etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)	Each	1,73,445.17
44	Providing & fixing CI D/F sluice valve with S&S (IS 6603 12 Sr 12) stain and gun metal parts conforming to (IS 14846 of approved make/ of approved brand (with cap) in the existing pipe with bolts, nuts, rubber insertion etc. complete and as per the direction of engineer in charge. The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, testing, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job. - 900mm dia	No.	10,42,384.72
45	Plugging the existing storm water/sewer line so as to reduce the drainage of storm water/sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same after completion of the job to the entire satisfaction of the Engineer-in-charge, i/c pumping and bailing out of the water complete. The rate includes all labour, material, Tools & Plants, machinaries, carriage, shifting, work at any leveletc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be payable.		
a	box drain of size 3x 2.1 mtr	No	1,28,468.54
b	2000mm dia pipe	No	57,550.28
c	1200mm dia pipe	No	34,530.17

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
46	<p>Providing /laying of 1000mm dia made up of 12mm M.S plate as per I.S 2062 through trench-less technology by Specialized Augar boring machine with steering kit to cross the carriage way i/c maintain levels with the help of laser guided equipment, excavation of thrust & receiving pit side shoring, providing thrust bed & blocks, welding, cutting the steel pipes surface internal & external painted shall be blasted to near white and coated with 750 micron PU coating paint each phase of pipe, filling back compaction, disposal of surplus earth, i/c, generator, JCB, Cranes, trenchless machine, jacks, hydraulic technology, testing etc. all material, labour and T&P complete job. as per direction of Engineer-In-Charge. Deploy of sign board, Insurance of work man etc complete i/c removal of all hinderences unforeseen items permission of other department (deptt. shall only assist in getting permissions etc) nothing extra shall be paid on this account to complete the job.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding, coating, primer, painting, testing, all lead and lift, excavation, backfilling, dewatering, restoration, barricading, support for soil etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	1,01,731.02
47	<p>Providing and laying mild steel pipe 1000mm internal dia. Made from 10mm thick MS plate conforming to IS 2062, interior lining with cement mortar and exterior surface treated with coating and wrapping confirm to IS3589-2001, IS:10221-1982, 11909-1986, specification i/c all lead and lift complete as per direction of the Engineer-in-charge.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, testing, coating, wrapping, all lead and lift etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	Metre	23,309.10
48	<p>Providing lead caulked joints including the cost of pig lead supply and fixing of rubber gasket ,welding and cutting of M.S. pipes and specials including the cost of HP of T & P at site (For water mains at interconnection point/y-tee/valve)including dewatering.</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be payable.</p> <p>a) 1000mm dia.</p>	Each	35,323.38
49	<p>Taking out and transportation of CI / MS / PSC / HS pipes including de-jointing and transportation up to all lifts and leads of 5.0km (scrap shall be the property of NMRC). For interconnection point/Y-tee/valve</p> <p>The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting to designated location, work at any level, at any lead etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid to complete this job.</p> <p>a) 1000mm dia.</p>	Each	49,923.54

Part-B4.1 : ITEMS FOR CIVIL UTILITIES

Item No.	Description of Items	Unit	Rate
50	<p>De-Silting and cleaning of conveyance system/sewerline/Storm water line and Manholes by super sucker machine and taking out of silt, debries, rubbish, brick bats etc. including all cost of labour, material T&P, watch & ward caution board, diesel, mobil etc. and wear & tear of machinery complete. The silt debries shall be carted and dumping manual hazard areas as directed by Engineer-in-charge. Any damage to the Manholes shall be rectified at his own cost. Manholes will be traced out and including CCTV survey taken in the conveyance system and report submitted by contractor in (CD) or as directed by Engineer-in-charge. (The rate includes all labour, Tools & Plants, machinaries etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)</p>	Cum	7,014.03
51	<p>Providing and fixing 600mm dia. 'IVC' brand cast iron double flanged single door swing non-return valve conforming to IS 5312 (Part-I), having body, door cover in grade cast iron to IS210 Gr. FG 200, body & door rings & bearing block of leaded tin bronze to IS318 Gr. LTB 2 (350mm dia. & above), hinge pin of st. AISI 410, valve suitable for a maximum working pressure of 10Kg/sqcm (seat test) & body tested to 15 Kg/sqcm. Flanges drilled to IS 1538 Table 4 & 6 complete in all respect and as per the direction of Engineer-in-charge. The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, testing, carriage, shifting, work at any level etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.</p>	no.	3,85,718.34
52	<p>Supplying and fixing of 150mm dia. HDPE pipe complete in all respect and as per the direction of engineer-in-charge. (The rate includes all labour, material, Tools & Plants, machinaries, consumables, carriage, shifting, work at any level, scaffolding etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)</p>	Metre	273.33
53	<p>Providing and Driving of temporary H-piles (ISMB 250) having a length of 7 m by approx. Means using the appropriate machinery and providing and placing wooden lagging 100*100*1485 mm long in between H-piles for supporting excavated soil faces to a excavated depth of soil including driving & Redriving the H-piles and removing and placing wooden lagging stretches as required ,removal of excavated earth from site as required excluding the cost of excavation of soil and including all T &P, labour ,machinery etc.: Note: The Excavation of Soil shall be paid separately as per DSR. (The rate includes all labour, material, Tools & Plants, machinaries, consumables, welding, carriage, shifting, work at any level, scaffolding etc. complete in all respect and as per the direction of Engineer-in-charge. Nothing extra shall be paid on this account to complete the job.)</p>	Cum	1,940.03

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
1	Supply at site of work of HT, XLPE Insulated, armoured , Al Conductor Cables as per IS - 7098/ Part- II/1985 with up date amendment & specified in specifications of the size given below		
1.1	33 KV XLPE 3 X 400 sqmm	Mtr.	3,363.81
1.2	11 KV XLPE 3 X 300 sqmm	Mtr.	1,820.21
1.3	11 KV XLPE 3 X 150 sqmm	Mtr.	1,158.20
1.4	11 KV XLPE 3 X 95 sqmm	Mtr.	873.94
2	Labour charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in trenches with bricks & Sand in Normal/Ordinary Soil of following Size of Cable		
2.1	33 KV XLPE 3 X 400 sqmm	Mtr.	152.96
2.2	11 KV XLPE 3 X 300 sqmm	Mtr.	152.96
2.3	11 KV XLPE 3 X 150 sqmm	Mtr.	152.96
			-
3	Labour charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in trenches with bricks in foot-path of tile/Rajasthani stone/Kota Stone/Agra Stone/Tiles of following Size of Cable		
3.1	33 KV XLPE 3 X 400 sqmm	Mtr.	168.26
3.2	11 KV XLPE 3 X 300 sqmm	Mtr.	168.26
3.3	11 KV XLPE 3 X 150 sqmm	Mtr.	168.26
			-
4	Labour charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in trenches with bricks in rockey area of following Size of Cable		
4.1	33 KV XLPE 3 X 400 sqmm	Mtr.	309.32
4.2	11 KV XLPE 3 X 300 sqmm	Mtr.	309.32
4.3	11 KV XLPE 3 X 150 sqmm	Mtr.	309.32
5	High Voltage test of 11KV 3x300sq.mm cable - Testing Equipment to be provided by the contractor.	Each	1,699.55
6	Supply at site of work of LT, XLPE Insulated, armoured , Al Conductor Cables as per IS - 7098/ Part- II/1985 with up date amendment & specified in specifications of the size given below		
6.1	1.1 KV XLPE 3.5 X 300 sqmm	Mtr.	1,262.52
6.2	1.1 KV XLPE 3.5 X 150 sqmm	Mtr.	681.69
6.3	1.1 KV XLPE 4.0 X 95 sqmm	Mtr.	449.53
6.4	1.1 KV XLPE 4.0 X 50 sqmm	Mtr.	256.16
6.5	1.1 KV XLPE 4.0 X 25 sqmm	Mtr.	168.30
6.6	1.1 KV XLPE 2.0 X 25 sqmm	Mtr.	105.08
6.7	1.1 KV XLPE 2.0 X 10 sqmm	Mtr.	80.11
7	Labour charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in trenches with bricks & Sand in Normal/Ordinary Soil of following Size of Cable		
7.1	1.1 KV XLPE 3.5 X 300 sqmm	Mtr.	142.77

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
7.2	1.1 KV XLPE 3.5 X 150 sqmm	Mtr.	142.77
8	Labour charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in trenches with bricks in foot-path of tile/Rajasthani stone/Kota Stone/Agra Stone/Tiles of following Size of Cable		
8.1	1.1 KV XLPE 3.5 X 300 sqmm	Mtr.	154.66
8.2	1.1 KV XLPE 3.5 X 150 sqmm	Mtr.	154.66
9	Labour charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in trenches with bricks in rockey area of following Size of Cable		
9.1	1.1 KV XLPE 3.5 X 300 sqmm	Mtr.	271.92
9.2	1.1 KV XLPE 3.5 X 150 sqmm	Mtr.	271.92
10	Digging of cable Tranch in Normal/Ordinary Soil for 1.1 KV LT 4C X 95 /25 & 2C X 25/10 cables of the required size including back filling with the excavated earth and disposing the surplus excavated material all Complete.	CUM	152.96
11	Digging of cable Tranch in foot path of tile/ Rajasthani stone /Kota stoe/Agra stoe/Tiles for 1.1 KV LT 4C X 95 /25 & 2C X 25/10 cables of the required size including back filling with the excavated earth and disposing the surplus excavated material all Complete.	CUM	190.34
12	Digging of cable Tranch in rockey area for 1.1 KV LT 4C X 95 /25 & 2C X 25/10 cables of the required size including back filling with the excavated earth and disposing the surplus excavated material all Complete.	CUM	526.86
13	Laying of under ground LT cables of 1.1 KV LT 4C X 95 /25 & 2C X 25/10 in trench, docketing with bricks & Sand as per BSES specifications, refilling the trench and ramming the surface & removal of malba if any, including supply of bricks and sand (50 mm below & 50 mm above the cable)	Mtr.	33.99
ONING OF COMPLETE STRAIGHT THROUGH JOINT			
14	Supply of complete Straight Through Joit as specified in the Specification including provision of Lugs/Ferrules for Joiting the HT/LT, XLPE/Pilka/PVC insulated cables of following sizes and Types.		
14.1	33 KV H.S. Type 3 X 400 sqmm	Each	56,796.00
14.2	11 KV H.S. Type 3 X 300 sqmm	Each	14,056.69
14.3	11 KV H.S. Type 3 X 150 sqmm	Each	12,061.58
14.4	11 KV H.S. Type 3 X 300 sqmm PILCA CABLE	Each	24,629.99
14.5	11 KV H.S. Type 3 X 150 sqmm PILCA CABLE	Each	23,894.77
14.6	1.1 KV H.S. Type 4 X 300 sqmm XLPE Cables	Each	2,626.82
14.7	1.1 KV H.S. Type 4 X 150 sqmm XLPE Cables	Each	2,237.80
14.8	1.1 KV H.S. Type 4 X 95 sqmm XLPE Cables	Each	2,237.80
14.9	1.1 KV H.S. Type 4 X 25 sqmm XLPE Cables	Each	1,498.99
14.10	1.1 KV H.S. Type 2 X 25 sqmm XLPE Cables	Each	1,061.78

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
15	Supply of complete HS Indoor/Outdoor type end termination as specified in the Specification including provision of Lugs/Ferrules for termination of XLPE insulated cables of following sizes and Types.		
15.1	33 KV H.S. Type 3 X 400 sqmm	Each	18,170.02
15.2	11 KV H.S. Type 3 X 300 sqmm	Each	5,974.58
15.3	11 KV H.S. Type 3 X 150 sqmm	Each	5,606.97
16	Making Straight through joint of all HT cables. The job involves preparing cables for termination, fitting heat shrinkable breakouts, non tension connectors, heat shrinkable sleeves to make proper joint of Cables	Each	2,889.22
17	Making Cable End Termination of all HT Cables	Each	1,699.55
18	Making Straight through joint of LT cables 35 - 150 Sqmm . The job involves preparing cables for termination, fitting heat shrinkable breakouts, non tension connectors, heat shrinkable sleeves to make proper joint of Cables.	Each	509.87
19	Making Straight through joint of LT cables 150 - 300Sqmm . The job involves preparing cables for termination, fitting heat shrinkable breakouts, non tension connectors, heat shrinkable sleeves to make proper joint of Cables.	Each	679.82
TRENCHLESS			
20	Supply of HDPE Pipes as per IS 4984, size - 160 mm dia	Mtr.	622.04
21	Supply of HDPE Pipes as per IS 4984, size - 200 mm dia	Mtr.	968.75
22	Crossing of roads by trench-less technology by laying of HDPE pipe excluding supply of pipe. Laying of HDD Machine Moling,Drilling and laying . 160 mm dia	Mtr.	1,336.86
23	Crossing of roads by trench-less technology by laying of HDPE pipe excluding supply of pipe. Laying of HDD Machine Moling,Drilling and laying . 200 mm dia	Mtr.	1,504.96
24	Supply, digging & laying of Hume Pipe in normal soil/ foot path of tile/ Rajsthani stone/ Kota stone/ Agra stone/ Tiles 200 mm Dia		
24.1	200 mm dia Hume Pipe	Mtr.	321.22
24.2	250 mm dia Hume Pipe	Mtr.	338.21
24.3	160 mm dia Hume Pipe	Mtr.	258.34
25	Supply and Laying of GI pipe 6" dia 2nd class ISI mark for crossing the various nallah on route including supply and fabrication of support of M.S. channe/Angle with petty masonry work for grouting of support. Badarpur stone ballast, cement and bricks shall be supplied by the contractor.	Mtr.	1,274.66
26	Supply and Laying of GI pipe 6" dia 2nd class ISI mark for crossing the various nallah.	Mtr.	798.78
	TEST PIT		

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
27	Digging of Test Pit of the required size at site for identificatio of the cble alongwith refilling with loose earth and ramming the surface icluding removal of malba . For Ordinary Soil.	CUM	152.96
28	Digging of Test Pit of the required size at site for identificatio of the cble alongwith refilling with loose earth and ramming the surface icluding removal of malba . For Dense Carpet/CC portion/Asphaltic Road Portion.	CUM	445.28
FEEDER PILLAR, SERVICE PILLAR, RMU			
29	Supply of FEEDER PILLAR Type B & Type C as per owner of utility Specifications	Each	58,008.88
30	Plinthing and erection of Feeder Pillar as per BSES design including supply of bricks, cement, badrapur , jamuna sand etc.	Each	2,379.37
31	Plinthing and erection of Service Pillar as per owner of utility design including supply of bricks, cement, badrapur , jamuna sand etc.	Each	1,869.50
32	Installation, Testing & Commissioning comprising of Hi-Pot test, Primary injection, IR & MV Drop test for 1 - Function RMU.	Each	5,948.41
33	Installation, Testing & Commissioning comprising of Hi-Pot test, Primary injection, IR & MV Drop test for 3 - Function RMU.	Each	7,647.96
34	Installation, Testing & Commissioning comprising of Hi-Pot test, Primary injection, IR & MV Drop test for 4 - Function RMU.	Each	8,497.73
66 KV CABLE WORK			
35	Supply at site of work of 66 KV Single Cable (E) grade XLPE Insulated, armoured , Al Conductor Cables confirming to IS 60502- 2 with up date amendment & specified in specifications of the size given below		
35.1	66 KV 1C X 1000 sqmm	Mtr.	4,306.05
35.2	66 KV 1C X 630 sqmm	Mtr.	3,116.21
36	Charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in excavated trenches/already laid hume pipe/PVC pipe as required with bricks & Sand in Normal/Ordinary Soil	Mtr.	253.08
37	Charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in excavated trenches/already laid hume pipe/PVC pipe as required with bricks & Sand in foot-path of tile/Rajasthani stone/Kota Stone/Agra Stone/Tiles	Mtr.	335.53
38	Charges for Digging of cable Tranch of the required size including back filling with the excavated earth and disposing the surplus excavated material & Laying of Cables in excavated trenches/already laid hume pipe/PVC pipe as required with bricks & Sand in rocky area	Mtr.	894.18

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
39	Supply of Complete 66 KV HS type Straight Through Joint of following size.		
39.1	66 KV 1C X 1000 sqmm	Each	1,09,769.57
39.2	66 KV 1C X 630 sqmm	Each	99,715.58
40	Supply of Complete 66 KV HS OUTDOOR Tpye END TERMINATION KIT of following size.		
40.1	66 KV 1C X 1000 sqmm	Each	1,05,527.75
40.2	66 KV 1C X 630 sqmm	Each	97,049.48
41	Charges for making 66 KV Cable Straight Through Joint & Cable End Termination of all size of Cables	Each	14,059.50
STREET LIGHT POLES			
42	Supply & erection of 250 W Street lightig HPSV Lamp fittig Complete with HPSV Lamps, Fittings, Choke, Igitor etc. as per specifications of the owing agecy required or erected pole icluding wiring from the box, earthing. The wiring shall be done with 1X4 sqmm PVC isulated, PVC sheathed AL Conductor Cable including testing and Commissioning as per specifications and requirement. 16 SWG wire shall be ru through out the wiring for pole fitting inclusively.	Each	7,581.45
43	Supply & and Transporting to the site of the work of Steel Tubular swaged Pole of 10.5 meter height as specified with.		
43.1	Double Overhang Bracket - 2 Mtr. Long	Each	8,704.63
43.2	Single Overhang Bracket - 2 Mtr. Long	Each	8,423.83
44	9.0 Mtr. Hot dipped galvanised Octagonal Pole with Single Overhang arm & with foundtion bolts, base plate complete with foundation, entry and exit pipes, control JB with connector as shown on drawings and as per specifications.	Nos.	20,325.08
45	9.0 Mtr. Hot dipped galvanised Octagonal Pole with Double Overhang arm & with foundtion bolts, base plate complete with foundation, entry and exit pipes, control JB with connector generally as shown on drawings and as per specifications.	Nos.	22,346.81
46	Supply & and Transporting to the site of the work of PCC Pole of 11.0 meter height.	Each	9,636.43
47	Installation of St.lighting fittings includig connections with 4 or 2.5 sqmm PVC wire HPSV 250w/400w	Each	169.95
48	Installation of St.lighting fittings includig connections with 4 or 2.5 sqmm PVC wire HPSV 1500w/70w	Each	144.46
49	Muffing and plinthng of pole as per design of cement mortar 1:3:6(All material to be provided by contractor)	Each	322.92
50	Zebra painting on any type of pole including supply of paints upto 1.03 M height from GL	Each	93.47
51	Painting of St. Ltg. Steel Tubular poles with 1 coat of red oxide primer and 2 coats of aluminum paint including numbering as per owner of utility design (l/c supply of paint) 6.6 M SOH	Each	152.96

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
52	Painting of St. Ltg. Steel Tubular poles with 1 coat of red oxide primer and 2 coats of aluminum paint including numbering as per owner of utility design (l/c supply of paint) 9.1M SOH/9.0 M Steel Tubular Pole	Each	186.95
53	Painting of St. Ltg. Steel Tubular poles with 1 coat of red oxide primer and 2 coats of aluminum paint including numbering as per owner of utility design (l/c supply of paint) 10.5 M SOH	Each	229.44
54	Painting of St. Ltg. Steel Tubular poles with 1 coat of red oxide primer and 2 coats of aluminum paint including numbering as per owner of utility design (l/c supply of paint) 10.5 M DOH	Each	254.93
55	Painting of St. Ltg. Steel Tubular poles with 1 coat of red oxide primer and 2 coats of aluminum paint including numbering as perowner of utility design (l/c supply of paint) 11.86 M SOH	Each	297.43
56	Painting of St. Ltg. Steel Tubular poles with 1 coat of red oxide primer and 2 coats of aluminum paint including numbering as per owner of utility design (l/c supply of paint) 11.86 M DOH	Each	339.90
57	Erection of steel tubular swaaged Pole of Height aboe 9.0 mtr but less than 12.0 mtr with Double/ Single overhang bracket 2 mtr log icluding excavation and proiding and laying cement concrete 1:3:6 (1 Cement: 3 course sand: 6 stone aggregate of 20 mm normal size) in foundation and collar size 450 mm diameter and 400 mm height including providing and fixing 50 mm diameter class B GI pipe 1.5 meter long for cable entry. I/O plastering the foundation collar with 1:3 cement and course sand and painting of pole and bracket with aluminium colour synthetic enamel paint complete as required.	Each	1,752.16
58	Dismantling of Complete street Light Pole (of height above 9 m but less than 12 m single/Double oerhang type) with fittings in such a manner that pole is note damaged and can be relocated.	Each	362.23
59	Provision of Earthing as per specifications of Utility owing agency (Material as well as Labour)	Each	3,379.21
60	Supply and erection of Pole Junction Boxes as per owner of utility specifications.	Each	492.80
DISMANTLING OF MATERIALS			
61	Dismantling of Street light St. Tub. poles of any type after digging the pit and taking out the pole and stacking the pole at a proper place in safe positions and refilling the pit with loose erth and rmming including removal of malba.	Each	594.84
62	Dismantling of Wolf and above Dog conductor from the O/H line recoiling of the conductor and stacking the same at site.	Mtr.	2.97
63	Removal of all hardware fittig & insulators etc from all sizes of LT Poles & stacking the material at site.	Each	33.99
64	Removal of all hardware fittig & insulators etc from all sizes of HT Poles & stacking the material at site.	Each	54.38
65	Dismantling of Service Pillar icluding removal of conections of existing cables and its transportation to the tent site.	Each	467.38
66	Dismantling of Feeder Pillar icluding removal of conections of existing cables and its transportation to the tent site.	Each	594.84

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
67	Dismantalling of 16/25 KVA Transformer from existing P/M S/Stn. The work includes their removal & stacking at tent site with loading & unloading the Transformer.	Each	458.88
68	Dismantalling of above 25 KVA Transformer up to 100 KVA Transformer from existing P/M S/Stn. The work includes their removal & stacking at tent site with loading & unloading the Transformer.	Each	1,104.71
69	Dismantalling of 11 KV G.O. Switch 400/200 Amps. from existing P/M S/Stn. The work includes their removal & stacking at tent site with loading & unloading the materials.	Each	467.38
70	Dismantalling /Reclaimig and de-termination of HV Cables 11 KV, 3CX300 sqmm XLPE Cable from dugged trech and re-rolling the cable on the drum or in the shape of coil and transportation to store/site (digging will be extra)	Mtr.	59.48
71	Dismantalling /Reclaimig and de-termination of HV Cables 11 KV, 3CX150 sqmm XLPE Cable from dugged trech and re-rolling the cable on the drum or i the shape of coil and transportation to store/ site (digging will be extra)	Mtr.	33.99
72	Dismantalling /Reclaimig and de-termination of 3.5CX300 sqmm AL, XLPE/PVC insulated , armoured Cable from dugged trech and re-rolling the cable on the drum or in the shape of coil and transportation to store/site (digging will be extra)	Mtr.	25.49
73	Dismantalling /Reclaimig and de-termination of 3.5CX150 sqmm AL, XLPE/PVC insulated , armoured Cable from dugged trech and re-rolling the cable on the drum or in the shape of coil and transportation to store/site (digging will be extra)	Mtr.	15.29
74	Dismantalling /Reclaimig and de-termination of below 3.5CX150 sqmm up to 3.5CX 95 sqmm AL, XLPE/PVC insulated , armoured Cable from dugged trech and re-rolling the cable on the drum or i the shape of coil and transporttio to store/site (digging will be extra)	Mtr.	11.89
75	Dismantalling /Reclaimig and de-termination of below 3.5CX150 sqmm AL, XLPE/PVC insulated , armoured Cable from dugged trech and re-rolling the cable on the drum or i the shape of coil and transporttio to store/site (digging will be extra)	Mtr.	10.20
76	Dismantalling of the 11 KV RMU from Kiosk/indoor type, S/Stn. Including their safe removal and stacking at store including loading and unloading. the work Iso includes the removal of ll electric/earth connections.	Each	1,869.50
77	Dismantalling of PCC/RCC 30'/28'/27' Long poles after digging the pit and taking out the pole and stacking the pole at a proper place in safe positions and refilling the pit with loose earth and ramming including removal of Malba.	Each	679.82
78	Dismantalling of PCC/RCC 36'Long poles after digging the pit and taking out the pole and stacking the pole at a proper place in safe positions and refilling the pit with loose earth and ramming including removal of Malba.	Each	934.75
79	Dismantalling of 9.0 Mtr Steel Tub poles after digging the pit and taking out the pole and stacking the pole at a proper place in safe positions and refilling the pit with loose earth and ramming including removal of Malba.	Each	424.89

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
80	Dismantling of conductor of the All sizes of Earth Wire or Conductor below the size of Dog conductor from the O/H. line recoiling of the conductor and stacking the same at site.	M	2.03
81	Removal of HPMV/HPSV St. Light fittings with hardware etc. including the safe transportation to the site and stacking the material properly. (Exclusive of Tower wagon)	Each	67.98
82	Disconnection or Connection of 11KV XLPE Cable of 3cX 150 sq.mm.	Each	101.97
83	Disconnection or Connection of 11KV XLPE Cable 3cX 300 sq.mm.	Each	135.96
84	Disconnection or connection of LT 2 core cable of any size.	Each	11.89
85	Disconnection or connection of LT Cable upto 4x50 sq. mm	Each	17.00
86	Disconnection or connection LT Cable from 3.5cx 95 sq. mm to 3.5c185sq.mm.	Each	23.79
87	Disconnection or connection of LT Cable 3.5cx 300 sq. mm	Each	59.48
88	Dismantling and Removal of all the angle Irons channel - frames/ clamps etc. on 2 pole structure from existing P/M S/Stn. The work includes their removal & stacking at tent site and loading unloading	Each	764.79
89	Dismantling and Removal of all the angle Iron channel/MS flat frames/platform clamps etc on 4 pole structure from existing P/M S/Stn. The work includes their removal & stacking at site and loading unloading .	Each	1,529.59
90	Dismantelling and demolishing concrete work for all types of structure at all levels including stacking of structure at all levels including stacking of serviceable material, cutting reinforcement, labour, equipment, safety precautions, all complete as per specification, drawing and instruction of engineer. - Plain cement concrete of all grades	CUM	135.96
91	Dismantelling and demolishing concrete work for all types of structure at all levels including stacking of structure at all levels including stacking of serviceable material, cutting reinforcement, labour, equipment, safety precautions, all complete as per specification, drawing and instruction of engineer. - Reinforced Cement concrete of all grades	CUM	169.95
ABC CONDUCTOR			
92	Dismantalling of the following LT ABC cables, with help of proper tool i.e. pullies, cable drum jacks, pulling & crimping tool etc. - 3 cores of 95 sqmm, 1 core of 50 sqmm Al conductor with XLPE insulation and messenger wire (with or without one 16 sq.mm. additional core for lighting)	Mtr.	11.89
93	Dismantalling of the following LT ABC cables, with help of proper tool i.e. pullies, cable drum jacks, pulling & crimping tool etc. - 3 cores of 50 sqmm, 1 core of 25 sqmm Al conductor with XLPE insulation and messenger wire (with or without one 16 sq.mm. additional core for lighting)	Mtr.	8.50
94	Dismantalling of the following LT ABC cables, with help of proper tool i.e. pullies, cable drum jacks, pulling & crimping tool etc. - 3 cores of 150/120sqmm, 1 core of 70 sqmm Al conductor with XLPE insulation and messenger wire (with or without one 16 sq.mm. additional core for lighting)	Mtr.	13.60
95	Dismantaling of Eye Hook/Dead end clamp or any type of hook or clamp used for ABC Cable erection.	Each	10.20

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
96	Dismantling of Cable of following size with 3 core Al. Conductor (XLPE Insulated) and 1 Core bare Al. messenger Cum neutral - HT ABC Cable 3Cx150+1Cx150 sqmm	Mtr.	13.60
97	Dismantling of Cable of following size with 1 core Al. Conductor (XLPE Insulated) and 1 Core bare Al. messenger Cum neutral - HT ABC Cable 1c x95+1cx34 sq. mm	Mtr.	11.89
98	Supply at site of work of HT, 11 KV ABC XLPE Insulated Al Conductor Cables as per specified in specifications of the size given below		
98.1	11 KV ABC XLPE cable 3CX150 + 1C X 150 sqmm AL	Mtr.	970.73
98.2	11 KV ABC XLPE cable 1CX95 + 1C X 35 sqmm AL	Mtr.	251.43
99	Supply at site of work of LT, 11 KV ABC XLPE Insulated Al Conductor Cables as per specified in specifications of the size given below		
99.1	1.1 KV ABC XLPE cable 3X150 + 1 X 150+1X16 sqmm AL	Mtr.	760.22
99.2	1.1 KV ABC XLPE cable 3CX95 + 1C X 95+1X16 sqmm AL	Mtr.	497.28
100	Stringing and sagging of the following LT ABC cables, with help of proper tool i.e. pullies, cable drum jacks, pulling & crimping tool etc. - 3 cores of 95 sqmm, 1 core of 50 sqmm Al conductor with XLPE insulation and messenger wire (with or without one 16 sq.mm. additional core for lighting)	Mtr.	17.00
101	Stringing and sagging of the following LT ABC cables, with help of proper tool i.e. pullies, cable drum jacks, pulling & crimping tool etc. - 3 cores of 150/120sqmm, 1 core of 70 sqmm Al conductor with XLPE insulation and messenger wire (with or without one 16 sq.mm. additional core for lighting)	Mtr.	20.39
102	Fixing of eye hook or GI clamps or dead end clamps or suspension clamps with turn buckle for following sizes of messenger wire - Messenger size : 35-120 sqmm	Each	17.00
103	Fixing of heat shrinkable end cap on individual coares of 16 to 150 sqmm ABC cables.	Mtr.	8.50
104	Laying of Cable of following size with 3 core Al. Conductor (XLPE Insulated) and 1 Core bare Al. messenger Cum neutral - HT ABC Cable 3Cx150+1Cx150 sqmm	M	25.49
105	Termination of - HT ABC Cable 1Cx150 sqmm	Each	254.93
106	Fixing of suspension Clamps for 11KV ABC for below mentioned sizes - HT ABC Cable 3Cx95+1Cx95sqmm	Each	17.00
107	Fixing of suspension Clamps for 11KV ABC for below mentioned sizes - HT ABC Cable 3Cx150+1Cx150sqmm	Each	17.00
108	Fixing of dead end clamps for 11KV ACB for below mentioned sizes - HT ABC Cable 3Cx95+1Cx95sqmm	Each	17.00
109	Fixing of dead end clamps for 11KV ACB for below mentioned sizes - HT ABC Cable 3Cx150+1Cx150sqmm	Each	17.00
EARTHING			
110	Supply of Earthing MS electrodes size 50 mm X 3 M long.	Each	6,959.63
111	Supply of Earthing GI Strip size 25 X 6 mm .	KG	82.23
112	Supply of Earthing GI Strip size 25 X 3 mm.	KG	95.20
113	Supply of GI Stay wire of 7/10 SWG	KG	100.80

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
114	Earthing by boring 3" dia in ordinary soil with eath pipe GI stay wire 7/8-10 SWG upto ground level. The eye will be made for fixing wire in earth pipe/rod with nut & bolt arrangement as per BSES design. Resistance should be less than 1 ohm.	Each	977.23
115	Laying of GI Strip Size 25 x 6 mm from the main earth electrode up to Transformer body, neutral poit, RMU, Feeder Pillar, Service Pillar, LT/HT Panel etc. including proper end connection with nuts, bolts, washers etc.	Mtr.	13.60
116	Laying of GI Strip Size 25 x 3 mm from the main earth electrode up to Transformer body, neutral poit, RMU, Feeder Pillar, Service Pillar, LT/HT Panel etc. including proper end connection with nuts, bolts, washers etc.	Mtr.	8.50
117	Laying of 7/8 - 10 SWG GI stay wire along the cable trench by providing & fixing of proper wooden cleats and wall bolts and taking the loop connection for various switchgear and equipments by means of proper sockets & binding wire as etc. as per owner of utility design & site requirement.	Mtr.	17.00
HV/LV OVER HEAD LINE			
118	Supply of ACSR Uninsulated GOAT Conductor	Mtr.	315.61
119	Supply of ACSR Uninsulated WOLF Conductor	Mtr.	140.90
120	Supply of ACSR Uninsulated ZEBRA Conductor	Mtr.	343.18
121	Supply of 11 KV Disc type insulator of 160 KN complete with all hardwre fittings etc.	Each	1,385.44
122	Supply of 11 KV Disc type insulator of 90 KN Creap : 320/165 mm complete with all hardwre fittings etc.	Each	804.36
123	Supply of 11 KV Pin type insulator of 10 KN complete with all hardwre fittings etc.	Each	252.30
124	Supply of 33 KV Pin type insulator of 10 KN Creap : 900 mm complete with all hardwre fittings etc.	Each	749.94
125	Supply of 33 KV Pin type insulator of 10 KN Creap : 580 mm complete with all hardwre fittings etc.	Each	1,021.23
126	Erection of 36' PCC poles (11 Mtr) ,including refilling,ramming of the foundation and including removal of malba & transportation of pole from stacking site within 1 Km.distance excluding Digging,Concreting,& Brick Padding.	Each	934.75
127	Installation of any hardware fitting i.e. Pin insulators, Earth bracket, Cross arms, Disc. Insulators, Clamps etc.but excluding fabrication work on HV line.Rate is for per Pole on Single pole/rail structure/Double pole / rail Structure/on X-bracing structure/on 3 pole structureon /4 pole/rail structure on X-bracing of 3/4 pole/rail structure.	Each	84.98
128	Installation of any hardware fitting i.e. D' clamp,Two line cross arm, Shackle strips etc, for LV line (excluding fabrication works but including jumpering etc.).Rate is for per Pole on Single phase line./on Two phase line/on Three phase line with street lighting.Note:Shackle Insulators are included with H/W-Fitting.	Each	67.98

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
129	Installation of any hardware fitting i.e. D` clamp, Two line cross arm, Shackle strips etc, for LV line (excluding fabrication works but including jumpering etc.).Rate is for per Pole on Erection of extension bracket for single phase lines with street lighting.Note:Shackle insulators are included with H/W-Fitting.	Each	84.98
130	Installation of any hardware fitting i.e. D` clamp,Two line cross arm, Shackle strips etc, for LV line (excluding fabrication works but including jumpering etc.).Rate is for per Pole on Erection of extension bracket three phase line with street lighting.Note:Shackle Insulators are included with H/W-Fitting.	Each	93.47
131	Sagging & stringing of ACSR Conductor including jumpering & making of connection hooks etc. per conductor /per mtr.route length. Wolf	Mtr.	5.95
132	Re-sagging of ACSR Conductor including jumpering & making of connection hooks etc. per conductor /per mtr.route length. Wolf	Mtr.	3.40
133	Sagging & stringing of ACSR Conductor including jumpering & making of connection hooks etc. per conductor /per mtr.route length. Dog/Raccoon/Rabbit	Mtr.	5.10
134	Re-sagging of ACSR Conductor including jumpering & making of connection hooks etc. per conductor /per mtr.route length. Dog/Raccoon/Rabbit	Mtr.	3.06
135	Sagging & stringing of ACSR Conductor including jumpering & making of connection hooks etc. per conductor /per mtr.route length. Squirrel	Mtr.	2.13
136	Re-sagging of ACSR Conductor including jumpering & making of connection hooks etc. per conductor /per mtr.route length. Squirrel	Mtr.	1.70
137	Fixing of pucca stays in plinth of 8 cft. Concrete mortar of ratios 1:3:6 (1 cement,3 Badarpur 6 stone ballast), fixing of Base plate, Tension screws etc. with out fabrication work. Note: Badarpur,cement & Stone ballast to be provided by the contractor.- Excl.stay material & Excavation For HV pole.	Each	849.77
138	Fixing of pucca stays in plinth of 8 cft. Concrete mortar of ratios 1:3:6 (1 cement,3 Badarpur 6 stone ballast), fixing of Base plate, Tension screws etc. with out fabrication work. Note: Badarpur,cement & Stone ballast to be provided by the contractor.- Excl.stay material & Excavation For LV pole.	Each	679.82
139	Making & fixing of guard lacs of G.I.Wire no.4/6/8 SWG. For HV pole.	Each	18.70
140	Making & fixing of guard lacs of G.I.Wire no.4/6/8 SWG. For LV pole.	Each	11.89
141	Supply and fixing of Bamboo/PVC spacer for LT line	Each	27.20
142	Providing and Fixing of anti-climbing devices with six round of barbed wire.	Each	203.94
143	Providing and Fixing of Danger plate with clamps.	Each	161.45
144	Supply of MS Steel (Angle, Channel, Flat)	KG	67.98

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
145	Fabrication work using MS steel (for any type & as per drawing, specification provided by owner of utility) including all consumables i.e. welding rods, supplying and providing 2 coats of red oxide primer and one coat of aluminum paint, nuts, bolts and washers. All type frames,structure,clamps etc.Steel shall be provided by Contactor.	KG	71.38
146	Mounting of following accessories on the existing structure of P/M S/Stn. By means of suitable nut, bolts & clamps etc.mounting on necessary frames electrically interconnecting with each other after Crimping the sockets an 11 KV G.O. Switch.(Three Phase)	Each	594.84
147	Mounting of following accessories on the existing structure of P/M S/Stn. By means of suitable nut, bolts & clamps etc.mounting on necessary frames electrically interconnecting with each other after Crimping the sockets an 11 KV G.O. Switch (single phase)	Each	339.90
148	Mounting of following accessories on the existing structure of P/M S/Stn. By means of suitable nut, bolts & clamps etc. mounting on necessary frames electrically interconnecting with each other after Crimping the sockets an 11KV DD Fuse units (A set of three nos)	Each	424.89
149	Mounting of following accessories on the existing structure of P/M S/Stn. By means of suitable nut, bolts & clamps etc. mounting on necessary frames electrically interconnecting with each other after Crimping the sockets an 11KV DD Fuse units (single phase)	Each	339.90
150	Making & fixing of connection hooks on LT & HT O/H. line including binding as required. U-shape conventional type/Reverse U-Type including crimping of two sockets at the end.	Each	25.49
151	Making & Fixing jumpers on shackle points. (on LT) including crimping of cable sockets at its ends and connection with connection hook. From 50 sq. mm to 150 sq. mm cable S/Core	Each	25.49
152	Making & Fixing jumpers on shackle points. (on LT) including crimping of cable sockets at its ends and connection with connection hook. Above 150 sq. mm.	Each	33.99
153	Making of shackle points on HT 11 KV O/H line of all sizes of conductors complete in all respect.Rates are for Three Phases	Each	382.40
154	Making of Dead end points on HT 11 KV O/H line of all sizes of conductors complete in all respect.Rates are for Three Phases	Each	297.43
155	Making of shackle points on LT O/H line of all sizes of conductors complete in all respect.Rates are per Phase	Each	127.46
156	Making of Dead end points on LT O/H line of all sizes of conductors complete in all respect.Rates are per Phase	Each	101.97
157	Installation , testing and commissioning of 11/0.433 KV distribution transformer of following sizes on existing structure including jumpering of HT side and connecting the leads on LT side: 16 or 25 KVA Tr. On 2-pole/single pole structure.	Each	977.23
158	Installation , testing and commissioning of 11/0.433 KV distribution transformer of following sizes on existing structure including jumpering of HT side and connecting the leads on LT side: 100 KVA Tr. On 2-pole structure.	Each	1,529.59

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
159	Installation , testing and commissioning of 11/0.433 KV distribution Transformer of following sizes on existing plinth including grouting of frames required on HT & LT side for cables as per owner of utility Design & practice. 315/400 KVA Transformer.	Each	2,549.32
160	Installation , testing and commissioning of 11/0.433 KV distribution transformer of following sizes on existing structure including jumpering of HT side and connecting the leads on LT side: 400 KVA on 2-pole structure any type.	Each	3,059.19
161	Mounting of following accessories on the existing structure of P/M S/Stn.by means of suitable nut,bolts &clamps etc.complete as reqd.for 100/315/400/630 KVA TRFR. 11K.V.	Each	475.88
162	Mounting of following accessories on the existing structure of P/M S/Stn/HT Line/HT Panels/where ever required . By means of suitable nut, bolts & clamps etc. including mounting on necessary frames electrically interconnecting with each other after Crimping the sockets. Erection of 11kV O/D or I/D Cable end box	EA	84.98
163	Making of masonry plinth for placing the transformer with 90cm height above the ground level and 30cm below ground complete with bricks, cement, badarpur in the ratio of 1:6 and duly plastered on all sides Plinth to be provided with 75mm PCC layer on top.	CUM	3,908.96
164	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in cement mortar 1:6 (1 cement : 6 coarse sand)	CUM	3,314.11
165	Repairing and strengthening of existing fencing structure.	Each	1,002.74
166	Supply and fixing of wire mesh fencing 2.5 mtr height with gate frame of 3 mtr x 2.5 mtr with complete material including painting eg angle,chain link,wire mesh and civil material etc complete as per specification & drawing of BSES.Angle iron size 50x50x6 mm & MS strip 50 x 3 mm,Wire mesh 1"x3" of 8 SWG wire to be used for wire-mesh with providing support at 1.25m distance.	SQM	2,124.43
167	Supply & Stringing of Dog Conductor on Pole.	Mtr.	67.98
168	Supply and erection of LT Pin Insulator Complete with PIN and Hardware	Nos.	84.98
169	Supply & Fixing of GO/DO switch	Each	4,876.96
170	Supply of FUSE, DO, 11 KV 10 Amp. Per phase.	Each	2,502.79
	SHIFTING OF HIGH MAST		
171	Casting of open raft shallow RCC foundation suitable for sfe soil bearing capacity of 10 T/sq mtr. Including foundation bolt manufactured from special steel along with nuts washer and suitable size of anchor plate and template.	Nos.	61,183.63
172	Dismantling of the existing High Mast tower system with all fitting accessories with modern equipment along with existing cables.	Nos.	24,473.46
173	Erection & Commissioning of the High Mast system with help of modern engineering practices with existing light. Installation fitting after making good as required.	Nos.	27,192.73
174	Hardware set	Sets	1,291.66
FOR 12 METER POLES			

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
175	Fabrication, supply and erection of flange mounted hot dip Galvanized Octagonal Poles of 12 Mtr. Height made from 4 mm thick HT steel plate, having bottom dia of 200 mm & top dia of 100 mm. complete with window with flash cover at a height of 2.5 mtr. from the base for cable termination block etc. and galvanized base plate of size 320mm X 320mm X 20 mm thick on existing cement concrete pedestal as required including supplying and fixing of the following in the widow box provided for cable termination.	Each	46,555.72
	(a) Supply and fixing 6 mm thick laminated mounted sheet inside the window mounted on and including providing and welding 3 nos. GI strip 4 mm thick of suitable length and having suitable size tapped holes-10 nos as reqd.		
	(b) Supply and fixing 63 Amp terminal block suitable for 25 sqmm conductor - 4 nos & shorting link - 5 nos. o DIN channel i/c pdg. and fixing DIN channel of suitable length -2 nos. on the existing laminated sheet.		
	(c) Supply and fixing of two nos. 6 Amp SPMCB 'C' Characteristics Curve - 2nos. Earth stud- 2nos. welded at suitable height two nos. washers , springs washers & nuts.		
	(d) Cable support clamp suitable for 4 Nos. of 4X25 sqmm cable.		
176	Fabrication, supply and erection of flange mounted hot dip Galvanized Octagonal Poles of 8 Mtr. Height made from 4 mm thick HT steel plate, having bottom dia of 150 mm & top dia of 75 mm. complete with window with flash cover at a height of 0.5 mtr. from the base for cable termination block etc. and galvanized base plate of size 240mm X 240mm X 16 mm thick on existing cement concrete pedestal as required including supplying and fixing of the following in the widow box provided for cable termination.	Each	23,669.50
	(a) Supply and fixing 6 mm thick laminated mounted sheet inside the window mounted on and including providing and welding 3 nos. GI strip 4 mm thick of suitable length and having suitable size tapped holes-10 nos as reqd.		
	(b) Supply and fixing 63 Amp terminal block suitable for 25 sqmm conductor - 10 nos & shorting link - 5 nos. on DIN channel i/c pdg. and fixing DIN channel of suitable length -2 nos. on the existing laminated sheet.		
	(c) Supply and fixing of two nos. 6 Amp SPMCB 'C' Characteristics Curve - 1nos. Earth stud- 2nos. welded at suitable height two nos. washers , springs washers & nuts.		
	(d) Cable support clamp suitable for 4 Nos. of 4X25 sqmm cable.		
177	Providing and laying in position 1:2:4 reinforced cement concrete foundation of size 750 mm (L) X 750 mm wide and 1800 mm deep including excavation of earth, providing cutting, bending and placing in position, reinforcement of cold twisted bars of 12 mm dia - 1960mm long (approx) - 8 nos. and reinforcement ring of cold twisted bar of 8 mm dia - 2800 mm (approx) - 10 nos. (with 150 mm spacing) as required with positioning of foundation bolts (as per item below) and providing 75 mm (O.D) DWC, HDPE pipe for cable entry & exit as required.	Each	7,237.11

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
178	Providing and laying in position 1:2:4 reinforced cement concrete foundation of size 600 mm (L) X 600 mm wide and 1500 mm deep including excavation of earth, providing cutting, bending and placing in position, reinforcement of cold twisted bars of 12 mm dia - 1600mm long (approx) - 8 nos. and reinforcement ring of cold twisted bar of 8 mm dia - 2800 mm (approx) - 10 nos. (with 150 mm spacing) as required with positioning of foundation bolts (as per item below) as shown in the item below and providing 75 mm (O.D) DWC, HDPE pipe for cable entry & exit as required.	Each	5,911.46
179	Design & Costruction of suitable foundation with suitable reinforcement i/c grouting in existing bridge portion along with suitable size of thickness GI templates complete as required.	Each	7,237.11
180	Supplying and fixing 4 Nos. 25 mm diaX 700 mm long GI foundation bolt (EN 8 grade) with nuts, washer including 2 nos. template of 3 mm thick size 240 X 240 mm with 4 nos. 28 mm dia holes to match with PCD of Pole base plate as required.	Each	2,425.18
181	Supplying and fixing 4 Nos. 25 mm diaX 800 mm long GI foundation bolt (EN 8 grade) with nuts, washer including 2 nos. template of 4 mm thick size 310 X 310 mm with 4 nos. 28 mm dia holes to match with PCD of Pole base plate as required.	Each	3,136.03
182	Fabrication, Supplying & fixing of Galvaization arm bracket made out of 127.0 mm dia 400 mm long galvanised top tube with 1000 mm long 60 mm dia galvanised double over hang with tightening bolts etc. as required (Ordinary)	Each	2,926.17
183	Fabrication, Supplying & fixing of Galvaization arm bracket made out of 127.0 mm dia 400 mm long galvanised top tube with 1000 mm long 60 mm dia galvanised single over hang with tightening bolts etc. as required (Ordinary)	Each	2,394.15
184	Fabrication, Desinging, Supplying & fixing of Galvaization arm bracket 1000 mm long double over hang with tightening bolts etc. as per approved by EGINEER - in - charge. (Fancy)	Kg	147.78
185	Fabrication, Desinging, Supplying & fixing of Galvaization arm bracket 1000 mm long Single over hang with tightening bolts etc. as per approved by EGINEER - in - charge. (Fancy)	Kg	147.78
186	Supplying , Installation, testing and commissioning of HPSV fittig of 400 W(Integral type) with SON-T lamp, control gears such as choke, condenser and igniter etc. on the street light pole to be fixed under Item no. 1 & 2, complete as required (fitting to be IP-66 Protection)		
a	(a) Fitting for 'A' Category Roads as per Annexure ' A'.	Each	39,902.38
b	(b) Fitting for 'B' & 'C' Category Roads as per Annexure ' B'.	Each	22,939.44
187	Supplying , Installation, testing and commissioning of HPIT fitting of 400 W(Integral type) with HPI-T lamp, control gears such as choke, condenser and igniter etc. on the street light pole to be fixed under Item no. 1 & 2, complete as required (fitting to be IP-66 Protection)		
a	(a) Fitting for 'A' Category Roads as per Annexure ' A'.	Each	39,902.38
b	(b) Fitting for 'B' & 'C' Category Roads as per Annexure ' B'.	Each	22,939.44
188	Supplying , Installation, testing and commissioning of CDMT fitting of 150 W(Integral type) with CDM-T lamp, control gears such as choke, condenser and igniter etc. on the street light pole to be fixed under Item no. 3 & 4, complete as required (fitting to be IP-66 Protection)		

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
a	Fitting for 'B' & 'C' Category Roads as per Annexure ' B'.	Each	22,327.60
189	Supplying and drawing following sizes of PVC insulated copper conductor multicore cable in the existing poles and bracket from cable termination connector to the fitting i/c providing suitable copper lugs connection etc as required.		
a	(a) 3 Core 2.5 sqmm (For 12 Mtr. Poles).	Each	2,040.94
b	(b) 3 Core 2.5 sqmm (For 8 Mtr. Poles).	Each	1,739.45
190	Supplying and laying double walled corrugated (DWC) High Density Poly Ethylene (HDPE) pipe of following size having corrugatio o the outer wall ad plain surface on inner wall cofirming to IS 14930 (Part - I & II) , 0.7 Mtr. below the ground level i/c excavation, refilling the trench etc. as per specification as required. 90 mm outer dia nominal size.	Meter	302.97
191	Providing, boring and laaying HDPE pipes (ISI marked) of 125 mm O.D. conforming to IS: 4984-1995 with pressure rating of 4 KG/sq.cm. by trenchless technology with no dig method by makig bore hole in horizontal direction across the road as per direction of Engineer- in Charge with moling equipment i/c jointing cleaning, rodding of pipe. Providing suitable covers on mouth of pipes excavation of pits of required size at a depth of 1.30 Mtrs. to 2.0 Mtrs.	Meter	2,624.69
192	Fabrication, supplying and installation of outdoor type cubical feeder pillar of suitable size not less tha 30 cm and upto 45 cm deep made out of MS sheet 2 mm thick (14 SWG) duly compartmentalised having 4 strip busbar of 200 amp capacity double door with locking arragement for protection from rain, dust, duly fixed on MS angle iron frame work of size 50 mm X 50 mm X 6 mm (NS) 90 cm long legs out of which 45 cm grouted in cement concrete 1:2:4 (1 Cment 2 sand: 4 stone aggrete 20 mm) and having following accessories mounted inside the cubical panel i/c connection, inter conection with aluminum thimbles, earthing with two nos. earth studs duly painted with one coat of red oxide & two coat of superior qulity enamel paint complete etc. as required. Supplying ad fixing of following accessorries in the existig cubical panel board/feeder pillar includig coection testing etc. as required.	Each	76,712.19
	(a) 125 mp 16 KA MCCB - 4 pole - 1 No.		
	(b) 63 Amp. 10 KA MCCB - 4 pole - 4 Nos. (with 100 Amp Frame Size)		
	(c) Voltmeter 0-500 volt 96 sqmm flush type with selector switch.		
	(d) Ammeter 0-100 Amp 96 sqmm flush type with selector switch & 100/5 mp CTs ratio.		
	(e) Indication lamps (RYB) with control HRC fuse with fuse fitting.		
	(f) Power contractor 3 pole (ML-6) 95 Amp.		
	(g) Timer, B -21 Category reference 04764- legrand make or equivalent from GE/Siemens.		
	(h) Danger notice plate.		

Part-B4.2: Items for Electrical Utilities			
ITEM NO.	DESCRIPTIONS	UNIT	RATE
193	Credit for Old MS Poles (With Bracket) 9 Mtr. To 11 Mtr. In height including dismantling and removing from site etc. as required.	Each	1,847.33

Part B4-3:- Items For Telecom Utilities

Item No.	Description of Items	Unit	Rate
1	Supply & Provision of Polythene Insulated, Polythene sheathed Jelly filled (PIJF) copper conductor underground Armoured telephone cable as per DOT Specification No- G/CUG/01-02 Feb 96 (latest)		
a	1200/6.5 lbs (0.5 mm)	Mtr	2,526.71
b	800/6.5 lbs (0.5 mm)	Mtr	1,702.79
c	400/6.5 lbs (0.5 mm)	Mtr	1,180.96
d	200/6.5 lbs(0.5 mm)	Mtr	576.75
e	100/6.5 lbs (0.5 mm)	Mtr	329.57
f	50/6.5 lbs (0.5 mm)	Mtr	170.28
g	20/6.5 lbs (0.5 mm)	Mtr	76.90
2	Supply & Provision of Polythene Insulated, Polythene sheathed Jelly filled (PIJF) copper conductor underground Unarmoured telephone cable as per DOT Specification No- G/CUG/01-02 Feb 96 (latest)		
a	1200/6.5 lbs (0.5 mm)	Mtr	1,890.64
b	800/6.5 lbs (0.5 mm)	Mtr	1,277.09
c	400/6.5 lbs (0.5 mm)	Mtr	885.72
d	200/6.5 lbs(0.5 mm)	Mtr	432.56
e	100/6.5 lbs (0.5 mm)	Mtr	247.18
f	50/6.5 lbs (0.5 mm)	Mtr	127.71
g	20/6.5 lbs (0.5 mm)	Mtr	57.68
3	Identification for working /non working cables.This includes cutting , testing & jointing etc. of different corrage at both ends & jointing of cables pair	pairs	2.47
4	Trenching and backfilling on footpath/cc/bitumunious dense carpeted road for identification of cables (1.5m x 1.5 m)	Mtr	466.89
5	Trenching and backfilling on footpath/cc/bitumunious dense carpeted road (.90m x1.0m)	Mtr	186.76
6	Supply and provision of GI pipe B class (100 mm)	Mtr	346.05
7	Supply and provision of Red stone slab (600x225x38)	Nos.	16.48
8	Supply & Provision of jointing kit		
a	TSF-vi	Nos.	1,428.14
b	TSF-v	Nos.	1,098.57
c	TSF-iv	Nos.	769.00
d	TSF-iii	Nos.	659.14
e	TSF-ii	Nos.	357.04
9	Supply & Provision of Jointing material for jointing of copper cables	Nos.	1,275.67
10	Making Jointing pit (3mX3m)	Nos.	659.14
11	Jointing of newly laid cable pairs	pairs	2.20
12	laying/slewing of cables of diff. Corrage (Cu.)		
a	800 pair & above	Mtr	10.99
b	Below 800 pair	Mtr	5.49
	Supply & provision of 96 Fibre Optical Fibre Cable	Mtr	86.79
13	Supply & provision of 48 Fibre Optical Fibre Cable	Mtr	86.79
14	Supply & provision of 24 Fibre Optical Fibre Cable	Mtr	62.62
	Supply & provision of 12 Fibre Optical Fibre Cable	Mtr	31.86

Part B4-3:- Items For Telecom Utilities

Item No.	Description of Items	Unit	Rate
	Joint Enclosure 96 Fibre	Nos.	988.71
15	Joint Enclosure 48 Fibre	Nos.	758.01
16	Joint Enclosure 24 Fibre	Nos.	604.21
	Joint Enclosure 12 Fibre	Nos.	659.14
	Splicing of 96 PF OF Cable	Nos.	6,042.14
17	Splicing of 48 PF OF Cable	Nos.	6,042.14
18	Splicing of 24 PF OF Cable	Nos.	4,394.29
	Splicing of 12 PF OF Cable	Nos.	2,416.86
19	Laying of OFC cable	Mtr	10.99
20	Supply and Provision of HDPE pipe 32 mm dia (for subducting)	Mtr	21.97
21	Laying of Subduct (32 mm)	Mtr	5.49
22	Supply and Provision of 4 mm dia 3 strand polypropylene rope of ordinary grade	Mtr	2.96
23	Erection of MTNL Telephone Poles	Nos.	87.89
24	Construction of Joint Chamber for Joints and Pulling Pit	Nos.	4,394.29
25	Construction of 110 mm PVC pipe cable duc		
a	48 way	R Mtr.	6,591.43
b	24 way	R Mtr.	5,492.86
c	16 way	R Mtr.	4,943.57
26	Construction of Manhole for Cable Duct	Nos.	1,20,842.87
27	Supply & provision of 110 mm HDPE PN 10 (10 Kgf) pipe through trenchless technology	Mtr.	1,922.50
28	Laying of cables through moling technology (at a depth of 1.75 m)	Mtr.	340.56
29	Shifting of MTNL Pillars (1200 PAIR)	Job	1,20,842.87
	RATES FOR CABLE DUCT & MANHOLES		
1	Providing & laying PVC pipes, complete with sockets with cable duct in standard formation or as specified by the Engineer-in-Charge and in alignment maintained by using spacers including jointing with solvent cement solution but excluding the cost of PVC spacers all complete as per MTNL specifications (finished length of pipes shall be measured for making payment) and the rates includes the cost of rodding, cleaning & performing mandrel test and to pass all the checks and tests prescribed in final acceptance testing schedule of MTNL:a) 110mm Outer Dia PVC pipe of 2.5mm wall thickness	mtr.	134.84
2	Providing and fixing Abs thermoplastic spacer 2.7mm thick in any colour other than black as per drawing & shall ensure 50mm gap between pipes as per drawing.		
a	Double ended Spacer - 4-Ways	Nos.	66.71
b	Single ended Spacer - 4-Ways	Nos.	63.88
3	Providing and fixing Abs thermoplastic expansion plug (110gm. Wt.) in ducts in any colour other than black all complete as per the direction of Engineer-in-Charger and as per MTNL drawing: a) 110 mm outer dia pipe.	Nos.	78.06

Part B4-3:- Items For Telecom Utilities

Item No.	Description of Items	Unit	Rate
4	Providing and fixing 5mm thick (165gm.wt.) high density plastic material end caps in ducts in any colour other than black all complete as per the direction of Engineer-in-Charge and as per MTNL drawing:a) For 110mm outer dia pipe.	Nos.	2.96
5	Providing and laying 4mm dia 3 strand polypropelene rope of ordinary grade (as per IS:5175-1987) inside the pipe from manhole to manhole as per direction of Engineer-in-Charge.	One Running Meter.	2.84
6	Providing and laying polythene sheet of approved quality and weight not less than 1 Kg./10 Sqm. as per direction of Engineer-in-Charge. (The overlap shall not be less than 150mm wherever necessary).Polythene sheet to be wrapped all-round duct i/c fixing to the sides of soil by nailing etc. all complete. (Net area of polythene sheet ex. Overlapping) shall be measured for payment	Sq. Meter	22.70
7	Providing & fixing MS channel hot dip galvanized to a minimum coating wt. Of 610 gm./Square meter of size ISMC-75 (wt. 6.80 Kg./Mtr.) including making holes of 14mm dia as desired by the Engineer-in-Charge in both the flanges of the channel for fixing brackets and holes of 17mm dia in the web of the channel at the required spacing for fixing the channel to the wall of the manholes with the help of expandable type of 12mm dia, 65mm long stainless steel dash fasteners and hold-in-Anchor bolt of approved size & quality complete as per the direction of Engineer-in-charge and as per drg. The rate includes the cost of channel, dash fastners, bolts, washers, making hole etc. and the labour involved in all the operations as stated above: a) 1600 mm long.	Nos.	745.14
8	Providing and fixing in Manhole base slab, MS galvanized pulling eyelet of 20mm dia and 1000mm long, fixed in position as per direction of Engineer-in Charge and as per MTNL Drawings.	Nos.	166.06
9	Providing and fixing sump cover assembly consisting of cover frame and grill as per drawing. The sump cover frame shall be manufacture red from 35x35x5mm galvanized MS angle section and shall have clear inside opening of 300x300mm having holdfast of MS flat of size 20x4mm, 150mm long including welding, the cover grill shall be approved factory make and made of steel fibre reinforced concrete of size 340x340x30mm thick and shall have 2mm thick galvanised plate all-round. The random distributed steel fibre shall be provided @ 0.75% by volume of concrete. The fibre shall be of medium tensile steel in accordance with IS 12592 (Pt1-1988).	Nos.	603.21

Part B4-3:- Items For Telecom Utilities

Item No.	Description of Items	Unit	Rate
10	Providing & Fixing precast steel fibre reinforced concrete cover and frame for M/H of 690mm. Dia clear opening and shall be of approved factory make as per approved design & drg. Reinforced cement concrete of grade CU.M.0 conforming to IS 456-1978 shall be used and admixture conforming to is 9103-1979 shall be added to concrete mix. The manufacturing process shall be as per IS 12592 (Pt. 1, 1988). The random distributed steel fibre shall be provided at a rate of 0.75% by volume to concrete. The fibre shall be of medium tensile steel in accordance with IS 12592 (Pt 1 1988). The reinforcement as shown in drg. Shall be provided in the frame & cover and the same shall be welded to side lining of the cover. The galvanized MS Plate, Flat and Hooks as shown in the drg. Shall be provided in frame and cover for sidelining and lifting arrangement. The cover shall be able to withstand heavy duty loading conforming to classification HD-20 circular type as per IS-1726-1990. Suitable keyhole and PMT markings sunk cast on covers shall be made	Nos.	2,022.51
11	Providing & fixing locking arrangement for Manhole as per drg. The locking arrangement shall be of galvanized MS Angles, square bars, flats, plate etc. The rate includes cost of materials, welding, drilling, galvanizing & labour for manufacturing and fixing to the Manhole wall etc.	Kilogram.	78.06
12	Painting of Manhole code number with black or red paint over white base, in size of 100mm and 10mm thick at the inside surface of all the opening in Manhole as per the direction of Engineer-in-Charge.	Nos.	65.28
13	Providing and fixing in Manhole walls MS galvanized ladder hooks of 16mm dia and 800mm long fixed in position as per the direction of Engineer-in-Charge and as per MTNL drawing.	Nos.	65.28
14	Providing and fixing steel work welded in built up section cable bearer for manhole/Handhole (including GI nut and bolts) as per drawing including cutting handling upto each manhole and fixing in position all complete as per the direction of Engineer-in-Charge in tees, angles, flats and channels). (The end of the bolts shall be splitted into two parts and spreaded after fixing to avoid reopening and welding shall be continued on both side. All the above steel sections should be hot dip galvanized confirming to IS standard with minimum thickness of galvanizing conforming to 570gm/sqm. The wt. of section without galvanizing shall be considered for payment.	Kilogram.	85.16
15	Providing and fixing MS galvanized circular frame of 1100mm dia consisting of 75x4mm flat including providing of 3 Nos. (150x15x6mm) MS galvanized lugs including cutting holes in RCC neck, welding lugs to reinforcement and making good the holes with RCC (1:1.5:3) complete as per direction of Engineer-in-Charge.	Nos.	809.00
16	Disposal of surplus excavated materials/earth/rock etc. including loading, unloading and stacking all complete. To the MTNL plot/dumping yard identified by the local bodies irrespective of all leads & lift as directed by Engineer-in-Charge .	Cum	169.95
17	Dismantling of existing M/H & protection for existing OFC / copper cables	nos.	7,278.49
18	Dismantling of existing cable duct & handling of cable including serviceable material & disposal of unserviceable materials	job	14,062.04

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Summary of Schedule-C (DSR Items)

S.NO.	SUB HEAD	DESCRIPTION	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)	Amount for Botanical Extension (INR)
1	Sub Head C-1	Civil DSR	₹ 11,72,19,829.54	₹ 47,14,70,303.04	₹ 58,86,90,132.58
2	Sub Head C-2	Horticulture DSR	₹ 10,67,955.00	₹ 82,71,820.00	₹ 93,39,775.00
3	Sub Head C-3	E&M DSR	₹ 50,00,000.00	₹ 1,50,00,000.00	₹ 2,00,00,000.00

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

Schedule C1: for Civil, Architectural works DSR Items including Plumbing

Sr. No.	Description	Amount Boraki	Amount Boraki
1	CONCRETE WORKS	₹ 1,10,26,181.64	₹ 3,10,47,640.93
2	FLOORING WORK	₹ 63,65,107.36	₹ 2,58,43,915.10
3	STEEL WORK	₹ 2,30,24,954.78	₹ 10,89,63,052.36
4	FINISHING WORKS	₹ 1,23,25,074.38	₹ 4,43,35,584.21
5	ALUMINUM WORK	₹ 2,99,700.90	₹ 11,98,803.60
6	WATER PROOFING WORKS	₹ 13,49,950.29	₹ 55,08,543.49
7	CEILING WORKS	₹ 5,30,139.97	₹ 20,53,216.89
8	EXTERNAL DEVELOPMENT WORKS	₹ 39,94,153.37	₹ 2,12,09,694.41
9	STRUCTURAL GLAZING	₹ 3,83,678.00	₹ 15,34,712.00
10	SEWERAGE AND DRAINAGE SYSTEM	₹ 36,28,146.40	₹ 1,54,51,265.60
11	WATER SUPPLY / SOIL WASTE & VENT PIPES AND FITTINGS	₹ 30,14,965.35	₹ 92,12,259.25
12	SANITARY FIXTURES	₹ 3,66,151.90	₹ 14,65,114.40
13	RAIN WATER HARVESTING	₹ 9,11,625.20	₹ 36,46,500.80
14	Any other DSR Item	₹ 5,00,00,000.00	₹ 20,00,00,000.00
	Total	₹ 11,72,19,829.54	₹ 47,14,70,303.04

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
1.0		CONCRETE WORKS						
1.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :						
1.1.1	4.1.3	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	75.7	248	7878.50	5,96,402.45	19,53,868.00
1.2	4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing:						
1.2.1	4.2.3	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	563.85	2210.75	9895.20	55,79,408.52	2,18,75,813.40
		Note: For Plain Cement Concrete works above plinth level to Fifth floor level item 4.2.3 shall be considered only.						
1.3	5.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :						
1.3.1	5.1.3	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	286.4559	438.215	8583.40	24,58,765.57	37,61,374.63
1.4	5.9	Centering and shuttering including strutting, propping etc. and removal of form for						
1.4.1	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	1656	3594	736.40	12,19,478.40	26,46,621.60
1.4.2	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	1209	791	961.30	11,62,211.70	7,60,388.30
1.5	4.11	Providing and laying damp-proof course 50 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources).	Sqm	20	100	495.75	9,915.00	49,575.00
		SUB TOTAL OF CEMENT CONCRETE/ REINFORCED CEMENT CONCRETE WORKS					1,10,26,181.64	3,10,47,640.93
2.0		FLOORING WORK						
2.1	11.4	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	1120.73	4022.6	978.45	10,96,578.27	39,35,912.97
2.2	11.6	Cement plaster skirting (up to 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.						
2.2.1	11.6.1	18 mm thick.	sqm	24.968	96.15	662.05	16,530.06	63,656.11
2.3	11.13	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.						
2.3.1	11.13.1	40 mm wide and 4 mm thick.	metre	62.42	240.375	91.75	5,727.04	22,054.41
2.4	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :						
2.4.1	11.26.1	25 mm thick	sqm	209.6	1045.2	1948.25	4,08,353.20	20,36,310.90

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
2.5	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting , dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	63.6535	538.708	2354.70	1,49,884.90	12,68,495.73
2.8	11.37	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	sqm	92	320	1096.55	1,00,882.60	3,50,896.00
2.9	8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	831.2	3504.1	1267.95	10,53,920.04	44,43,023.60
2.10	11.41A	Providing and laying Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc..The tile must be cut with the zero chipping diamond cutter only.Laying of tiles will be done with notch trowel, plier, wedge, clips of required thickness, levelling system and rubber mallet for placing the tile gently and easily.						
2.10.1	11.41A.1	Double charge vitrified tile polished finish of size						
2.10.1.1	11.41A.1.1	Size of Tile 600x600 mm	sqm	265.3	1194.6	1453.65	3,85,653.35	17,36,530.29
2.10.2	11.41A.3	Glazed Vitrified tiles Matt/Antiskid finish of size						
2.10.2.1	11.41A.3.1	Size of Tile 600 x 600 mm	sqm	96.53	410.61	1464.85	1,41,401.97	6,01,482.06
2.11	11.46	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps , over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete.						
2.11.1	11.46.2	Size of Tile 600x600 mm	sqm	24.93	108.47	1623.05	40,462.64	1,76,052.23
2.12	11.47	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).						
2.12.1	11.47.2	Size of Tile 600x600 mm	sqm	19.17	77.03	1893.90	36,306.06	1,45,887.12
2.13	11.48	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.						
2.13.1	11.48.2	Size of Tile 600x600 mm	sqm	405.93	1790.71	309.05	1,25,452.67	5,53,418.93

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
2.14	11.53	Providing and fixing Glass mosaic tiles on finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in customize design as per direction of Engineer-in-Charge. The glass mosaic tiles to be fixed on the wall surface with the help of approved adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required pattern approved by Engineer-in-Charge:	sqm	133.31	415.05	3891.15	5,18,738.93	16,15,021.81
2.15	11.54	Providing and fixing removable raised/false access flooring with system and its components of approved make for different plenum height with possible height adjustment upto 50 mm, comprising of modular load bearing floor panels supported on G.I. rectangular stinger frame work and G.I. Pedestal etc. all complete, as per the architectural drawings, as specified and as directed by Engineer-in-charge consisting of:						
		(a) Providing at required spacing to form modular framework, pedestals made out of GI tube of thickness minimum 2 mm and 25 mm outer diameter, fully welded on to the G.I. Base plate of size 100mm x 100mm x 3mm at the bottom of the pedestal tube, G.I. pedestal head of size 75mmx75mmx3.5 mm welded with GI fully threaded stud 16mm outer diameter with two GI Check nuts screwed on the stud for level adjustment upto 50mm, locking and stabilizing the pedestal head in position at the required level. The pedestals shall be fixed to the subfloor (base) through base plate using epoxy based adhesive of approved make or the machine screw with rawl plug.						
		(b) Stringers system in all steel construction hot dipped galvanized of rectangular size 570x20x30x0.80mm thick having holes at both ends for securing the stringers on to the pedestal head using fully threaded screws ensuring maximum lateral stability in all directions, the grid formed by the pedestal and stringer assembly shall receive the floor panel, this system shall provide adequate solid, rigid support for access floor panel, the system shall provide a minimum clear uninterrupted clearance between the bottom of the floor for electrical conduits and wiring etc. all complete as per the architectural drawings, as specified and as directed by the Engineer-in-charge.						
		(c) Providing and fixing Access Floor panel of 600x600x32 mm medium grade Filled Steel anti static high pressure Lamination of 800H grade (FS800H). Access Floor panel shall be steel welded construction with an enclosed bottom pan with uniform pattern of 64 hemispherical cones. The top and bottom plates of Steel Gauges: top 0.6 mm and bottom 0.7 mm fused spot welded together (minimum 64 welds in each dome and 20 welds along each flange). The panel should be Corroresist epoxy coated for lifetime rust protection and cavity formed by the top and bottom plate is filled with Pyrogrip noncombustible Portland cementitious core mixed with lightweight foaming compound. The access floor shall be factory finished with Anti-static High Pressure laminate with Non Warp technology upto 1mm thickness for superior adhesion and Surface flatness within 0.75mm.The panel is to withstand a Concentrated Load of 363 kgs applied on area 25mm x 25mm without collapse in the centre of the panel which is placed on four steel blocks. The panel will withstand and Uniformly Distributed Load (UDL) minimum 1250 kg/sqm and an impact load of 50kg all complete as per the approved manufacturers specification and as per the direction of Engineer-in-charge. All specification must be printed on the side of the panel to ensure the quality of the product.						
2.15.1	11.54.1	300 mm Finished Floor Height (FFH)	sqm	221.80	804.00	5623.95	12,47,392.11	45,21,655.80
2.15.2	11.54.2	450 mm Finished Floor Height (FFH).	sqm	109.00	463.00	5977.35	6,51,531.15	27,67,513.05
2.16	8.2	Providing and fixing 18 mm thick gang saw cut, mirror polished, pre moulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels.						

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
2.16.1	8.2.2	Granite stone slab of colour black, Cherry/Ruby red						
2.16.1.1	8.2.2.1	Area of slab upto 0.50 sqm	sqm	10.00	40.00	5413.5	54,135.00	2,16,540.00
2.16.1.2	8.2.2.2	Area of slab over 0.50 sqm	sqm	24.06	104.70	5136.3	1,23,579.38	5,37,770.61
2.17	11.21	Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in- Charge.						
2.17.1	11.21.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)						
	11.21.1.1	Acid and alkali resistant tile	sqm	120.00	490.00	1738.15	2,08,578.00	8,51,693.50
		SUB TOTAL OF FLOORING WORKS					63,65,107.36	2,58,43,915.10
3.0		STEEL WORK						
3.1	10.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.						
3.1.1	10.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	sqm	48.00	192.00	3653.20	1,75,353.60	7,01,414.40
3.1.2	10.6.2	80x1.20 mm M.S. laths with 1.20 mm thick top cover	sqm	43.20	86.40	3307.05	1,42,864.56	2,85,729.12
3.2	10.7	Providing and fixing ball bearing for rolling shutters.	each	16.00	48.00	492.35	7,877.60	23,632.80
3.3	10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters.						
3.3.1	10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	sqm	91.20	278.40	1281.35	1,16,859.12	3,56,727.84
3.3.2	10.8.2	Exceeding 16.80 sqm in area	sqm	2.00	8.00	1181.80	2,363.60	9,454.40
3.4	10.9	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in- charge, (area of grill to be measured).	sqm	12.00	26.40	768.25	9,219.00	20,281.80
3.5	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.						
3.5.1	10.25.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	kg	20.00	80.00	123.6	2,472.00	9,888.00
3.5.2	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	kg	1978.50	9552.00	172.6	3,41,489.10	16,48,675.20
3.6	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.						
3.6.1	10.26.1	M.S. tube	kg	213.00	1304.00	196.8	41,918.40	2,56,627.20
3.7	10.27	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm ²), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.						
3.7.1	10.27.1	10 x 60 mm	each	20.00	80.00	131.10	2,622.00	10,488.00
3.8	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, sheets, grating, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	28712.00	136744.00	772.40	2,21,77,148.80	10,56,21,065.60

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
3.9	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.						
3.9.1	9.48.2	Fixed to openings /wooden frames with rawl plugs screws etc.	kg	20.00	80.00	238.35	4,767.00	19,068.00
SUB TOTAL OF STEEL WORK							2,30,24,954.78	10,89,63,052.36
4.0		FINISHING WORKS						
4.4	8.15	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases in stone and holes in walls wherever required.	kg	20.00	80.00	714.4	14,288.00	57,152.00
4.5	8.16	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand), including making the necessary chases.	each	200.00	800.00	43.90	8,780.00	35,120.00
4.6	13.1	12 mm cement plaster of mix :						
4.6.1	13.1.1	1:4 (1 cement: 4 fine sand)	Sqm	7162.92	26262.86	347.05	24,85,891.91	91,14,525.56
4.7	13.2	15 mm cement plaster on the rough side of single or half brick wall of mix :						
4.7.1	13.2.1	1:4 (1 cement: 4 fine sand)	Sqm	7162.92	26262.86	399.45	28,61,228.99	1,04,90,699.43
4.8	13.9	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.						
4.8.1	13.9.1	12 mm cement plaster	Sqm	10.00	40.00	449.55	4,495.50	17,982.00
4.9	13.78	Providing and applying 12 mm thick (average) premixed formulated one coat gypsum lightweight plaster having additives and light weight aggregates as vermiculite/ perlite respectively conforming to IS: 2547 (Part - 1 & II) 1976, applied on hacked / uneven background such as bare brick/ block/ RCC work on walls & ceiling at all floors and locations, finished in smooth line and level etc. complete.	Sqm	10.00	40.00	468.90	4,689.00	18,756.00
4.10	13.81	Distemping with 1st quality acrylic distemper , having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.						
4.10.1	13.81.2	Old Work (one or more coats)	Sqm	10.00	40.00	62.70	627.00	2,508.00
4.11	13.82	Wall painting with acrylic emulsion paint , having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.						
4.11.1	13.82.2	Two coats	sqm	6545.46	24264.62	137.45	8,99,673.68	33,35,172.02
4.12	13.83	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.						
4.12.1	13.83.2	Two coats	sqm	617.46	1998.24	142.80	88,173.29	2,85,348.67
4.13	13.85	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.						
4.13.1	13.85.3	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	sqm	14325.84	52525.73	73.95	10,59,396.09	38,84,277.73
4.14	13.45	Finishing walls with textured exterior paint of required shade :						
4.14.1	13.45.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	Sqm	6951.01	20154.15	223.60	15,54,246.73	45,06,467.94
4.15	13.80	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	7162.92	26262.86	156.05	11,17,773.90	40,98,319.30

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
4.16	13.52	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.						
4.16.1	13.52.2	On concrete work	Sqm	1080.47	200.00	235.15	2,54,072.52	47,030.00
4.17	12.63	Providing and applying two coats of High Albedo paint having minimum Solar Reflective Index (SRI) 108 (with solar reflectance & thermal emittance tested as per ASTM C 1549 and ASTM C 1371 respectively), VOC less than 10 cc/gm. The coating thickness and the methodology of application shall strictly as per manufacturer's specifications and as approved by Engineer-in-Charge. Surface preparation includes cleaning with metal wire brush to remove all dust, fungus etc., washing with water all complete. The contractor shall give guarantee for the performance of SRI and also the durability of coating, all complete as per direction of Engineer-in-Charge.	sqm	20.00	80.00	357.60	7,152.00	28,608.00
4.18	26.31	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-in-charge complete in all respect.						
4.18.1	26.31.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	sqm	20.00	80.00	141.20	2,824.00	11,296.00
4.20	9.163	Providing and fixing non load bearing fixed frame for fire resistant glazed Partition for 120 minutes Fire Rating, made out of a profile of dimension 60mm x 70 mm of 1.6 mm thick galvanised steel sheet as per test evidence suitable for fixing fire rated glass for 120 minutes of both integrity & radiation control (EW120) & minimum 20 minutes of insulation (EI20).The profile has to be fixed to the supporting construction by means of anchor fasteners of size M10 x 80, every 150 mm from the edges and every 500 mm (approx) c/c. Linear measurement of frame shall be measured for payment. The frame shall be filled with mineral wool insulation of density min 96kg/ m ³ and finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per NBC 2016, IS 16231 (Part 3):2016 and directions of Engineer - in- charge	metre	62.55	288.05	2202.90	1,37,791.40	6,34,545.35
4.21	9.164	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc. , with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m ²) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c , including applying a coat of approved fire resistant primer/ powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per NBC 2016, IS 16231 (Part 3):2016 and as per direction of Engineer-in-charge with glass of required thickness having 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 20 minutes of insulation (EI20). The manufacturer have to give test report/certification of fire glass and the glass should have the stamp showing the value of E, EW & EI. The glass shall be tested in approved NABL accredited lab or by any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes shall be eligible. The maximum glazing size shall not be more than 1100x2200 mm (w x h) or 2.42 sqm.	sqm	34.83	167.83	43677.65	15,21,074.16	73,30,420.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)									
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)	
4.22	9.105	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive), consisting of floor and ceiling channel 50 mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete.							
4.22.1	9.105.1	75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) plaster board conforming to IS: 2095: part 3 (Board with BIS certification marks)	sqm	141.10	201.10	2131.10	3,00,698.21	4,28,564.21	
4.23	24.8	Applying breathable, non-reactive, antifungal, and water repellant Silane/Siloxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:12 (One part of approved chemical :12 Part of Turpentine oil), on the existing sandstone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-In-charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	20.00	80.00	109.90	2,198.00	8,792.00	
SUB TOTAL OF FINISHING WORK							1,23,25,074.38	4,43,35,584.21	
5.0	ALUMINUM WORK								
5.1	21.1	Providing and fixing aluminium work for doors, windows, ventilators, louvers and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS : 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred & jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/ panelling C.P. brass/stainless steel screws all complete as per Architectural drawings and the directions of Engineer-in-charge (Glazing, paneling and dash fasteners to be paid for separately) :							
5.1.1	21.1.1	For fixed portion							
5.1.1.1	21.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	78.00	312.00	495.05	38,613.90	1,54,455.60	
5.1.2	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)							
5.1.2.1	21.1.1.2	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	kg	420.00	1680.00	598.60	2,51,412.00	10,05,648.00	

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
5.2	21.8	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.						
5.2.1	21.8.1	Upto 5mm depth and 5 mm width	Rmt.	100.00	400.00	96.75	9,675.00	38,700.00
		SUB TOTAL OF ALUMINIUM WORKS					2,99,700.90	11,98,803.60
6.0		WATER PROOFING WORKS						
6.1	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	100.50	439.40	617.05	62,013.53	2,71,131.77
6.2	22.7	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:						
		(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC						
		(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.						
		(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineerin-charge.						
		(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineerin-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.						
		(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test."All above operations to be done in order and as directed and specified by the Engineer-in-Charge :						
6.2.1	22.7.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	Sqm	177.10	728.80	1684.6	2,98,342.66	12,27,736.48

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
6.3	12.55	Providing and fixing Heat Resistant Terrace Tiles (300 mm x 300 mm x 20 mm) with SRI (solar refractive index) > 78, solar reflection > 0.70 and initial emittance > 0.75 on waterproof and sloped surface of terrace, laid on 20 mm thick cement sand mortar in the ratio of 1:4 (1 cement : 4 coarse sand) and grouting the joints with mix of white cement & marble powder in ratio of 1:1, including rubbing and polishing of the surface upto 3 cuts complete, including providing skirting upto 150 mm height along the parapet walls in the same manner.	Sqm	177.10	728.80	1703.95	3,01,769.55	12,41,838.76
6.4	22.23	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage.						
6.4.1	22.23.1	For vertical surface two coats @ 0.70 kg per sqm	Sqm	1227.78	5107.20	472.9	5,80,617.16	24,15,194.88
6.4.2	22.23.2	For horizontal surface one coat @1.10 kg per sqm.	Sqm	295.50	972.00	362.8	1,07,207.40	3,52,641.60
SUB TOTAL OF WATERPROOFING WORKS							13,49,950.29	55,08,543.49
7.0		CEILING WORKS						
7.1	12.54	Providing and fixing GI Clip in Metal Ceiling System of 600x600 mm module which includes providing and fixing 'C' wall angle of size 20x30x20 mm made of 0.5 mm thick pre painted steel along the perimeter of the room with help of nylon sleeves and wooden screws at 300 mm center to centre, suspending the main C carrier of size 10x38x10 mm made of G.I steel 0.7 mm thick from the soffit with help of soffit cleat 37x27x25x1.6 mm, rawl plugs of size 38x12 mm and C carrier suspension clip and main carrier bracket at 1000 mm c/c. Inverted triangle shaped Spring Tee having height of 24 mm and width of 34 mm made of GI steel 0.45 mm thick is then fixed to the main C carrier and in direction perpendicular to it at 600 mm centers with help of suspension brackets. Wherever the main C carrier and spring T have to join, C carrier and spring T connectors have to be used. All sections to be galvanized @ 120 gms/sqm (both side inclusive), fixing with clip in tiles into spring T with:						
7.1.1	12.54.1	GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of G I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending.	sqm	10.00	40.00	2221.70	22,217.00	88,868.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
7.1.2	12.54.2	GI Metal Ceiling Clip in plain Beveled edge global white color tiles of size 600x600 and 0.5 mm thick with 25 mm height, made of G I sheet having galvanizing of 100 gms/ sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation.	sqm	205.80	794.60	2354.65	4,84,586.97	18,71,004.89
7.2	26.27	Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595 mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance \geq 85%, Thermal Conductivity $k = 0.052 - 0.057$ w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized @120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32 mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8 mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the engineer-in-charge.						
7.2.1	26.27.1	With 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.60)	Sqm	10.00	40.00	2333.60	23,336.00	93,344.00
SUB TOTAL OF CEILING WORKS							5,30,139.97	20,53,216.89
8.0	EXTERNAL DEVELOPMENT WORKS							
8.1	16.64	Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.	sqm	10824.37	47729.00	199.35	21,57,838.16	95,14,776.15
8.2	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 coarse sand) including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm) including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	171.79	1117.06	10117.60	17,38,077.21	1,13,01,966.26

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
8.3	16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	sqm	10.00	40.00	9823.80	98,238.00	3,92,952.00
Total of External Development Works							39,94,153.37	2,12,09,694.41
9.0		STRUCTURAL GLAZING						
9.1	25.1	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings , the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary for fabrication of extruded aluminium frame work. Nothing extra shall be paid on this account).The weight of aluminium extruded section shall be taken for purpose of payment.	kg	20.00	80.00	414.30	8,286.00	33,144.00
9.2	25.2	Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including: (a) Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles,nuts, bolts, clamps etc., structural and weather silicone sealants,flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including: (b) Fabricating and supplying serrated M.S. hot dip galvanised /Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimensional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon seperator to prevent bimetallic contacts with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers. (c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.	sqm	10.00	40.00	3510.50	35,105.00	1,40,420.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
		(d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight. (e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural and functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer- in-Charge.						
9.3	25.3	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified,comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. (Payment for fixing of IGU Panels in the curtain glazing is included in cost of item No.25.2). For payment, only the actual area of glass on face # 1 of the glass panels (excluding the areas of the grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.	sqm	10.00	40.00	3718.70	37,187.00	1,48,748.00
9.4	25.4	Extra for openable side / top hung vision glass panels (IGUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/ fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineerin- Charge.	sqm	50.00	200.00	3671.50	1,83,575.00	7,34,300.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
9.5	25.6	<p>Providing and supplying Spandrel Glass Panels comprising of 6 mm thick heat strengthened monolithic float glass of approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade so as to match the colour and shade of the IGUs in the vision panels etc. ,all complete for the required performances as specified, as per the Architectural drawings, as per the approved shop drawings, as specified, and as directed by the Engineer-in- Charge.</p> <p>For payment, only the actual area of glass on face # 1 of the glass panels(but excluding the area of grooves and weather silicone sealant) provided and fixed in position, shall be measured in sqm. (Payment for fixing of Spandrel Glass Panels in the curtain glazing is included in cost of relevant Item*)."(i) Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/m2 K etc. . The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement</p>	sqm	10.00	40.00	2450.15	24,501.50	98,006.00
9.6	25.8	<p>Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS- 316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/ beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof.</p> <p>The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured.</p>	sqm	10	40	9502.35	95,023.50	3,80,094.00
Total of Structural Glazing Work							3,83,678.00	15,34,712.00
10.0	SEWERAGE AND DRAINAGE SYSTEM							
10.1	19.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :						
(a)	19.1.2	150 mm diameter	Metre	60	240	695.80	41,748.00	1,66,992.00
(b)	19.1.3	200 mm diameter	Metre	60	240	970.35	58,221.00	2,32,884.00
(c)	19.1.4	250 mm diameter	Metre	200	800	1,505.60	3,01,120.00	12,04,480.00
10.2	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :						
(a)	19.2.2	150 mm diameter S.W. pipe	Metre	60	240	1,179.85	70,791.00	2,83,164.00
(b)	19.2.3	200 mm diameter S.W. pipe	Metre	60	240	1,375.45	82,527.00	3,30,108.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
(c)	19.2.4	250 mm diameter S.W. pipe	Metre	200	800	1,590.55	3,18,110.00	12,72,440.00
10.3	19.6	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :						
(a)	19.6.2	150 mm dia. R.C.C. pipe	Metre	60	240	556.45	33,387.00	1,33,548.00
(b)	19.6.3	250 mm dia. R.C.C. pipe	Metre	200	800	899.80	1,79,960.00	7,19,840.00
(c)	19.6.4	300 mm dia. R.C.C. pipe	Metre	500	2000	994.30	4,97,150.00	19,88,600.00
	19.35	Providing and laying Non Pressure NP class (Medium duty) R.C.C. pipes including collars/spigot jointed w stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete						
(a)	19.35.1	450 mm dia. R.C.C. pipe	Metre	30	120	2,676.55	80,296.50	3,21,186.00
10.4	19.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of R.C.C pipes including bed concrete as per standard design :						
(a)	19.3.2	150 mm diameter	Metre	60	240	743.10	44,586.00	1,78,344.00
	19.3.3	200 mm diameter	Metre	200	800	873.50	1,74,700.00	6,98,800.00
(b)	19.3.4	250 mm diameter	Metre	200	800	1,016.90	2,03,380.00	8,13,520.00
(c)	19.3.5	300 mm diameter	Metre	300	2000	1,173.35	3,52,005.00	23,46,700.00
10.5	19.4	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :						
10.5.1	19.4.3	180 x 150mm size P-type						
(a)	19.4.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	2	8	2,802.15	5,604.30	22,417.20
10.6	19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1cement :1.5 coarse sand (zone-III):3 graded stone aggregate 20 mm nominal Size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement :2coarse sand:4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design:						
	19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :						
(a)	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	14	56	12,770.55	1,78,787.70	7,15,150.80
	19.7.3	Inside size 120x90cm and 90cm deep including C.I. cover with frame (heavy duty) 560mm internal diameter, total weight of cover and frame to be not less than 208 kg (weight of cover 108 kg and weight of frame 100 kg)						
(b)	19.7.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	4	16	32,857.85	1,31,431.40	5,25,725.60
10.7	19.8	Extra for depth for manholes:						
	19.8.1	Size 90 x 80 cm						
(a)	19.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	4	16	8,825.40	35,301.60	1,41,206.40
	19.8.2	Size 120x90 cm						
	19.8.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	2	8	10,585.50	21,171.00	84,684.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
10.8	19.9	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at in cement mortar 1:4 (1 cement : 4 coarse sand), in side cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design						
	19.9.1	0.91m deep with S.F.R.C. cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately).						
(a)	19.9.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	8	32	12,725.00	1,01,800.00	4,07,200.00
10.9	19.10	Extra depth for circular type manhole 0.91m internal dia (at bottom) with beyond 0.91m to 1.67m)						
(a)	19.10.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	4	16	7,591.80	30,367.20	1,21,468.80
10.10	19.11	Constructing brick masonry circular type manhole 1.22m internal dia at bottom and 0.56m dia at in cement mortar 1:4 (1 cement : 4 coarse sand), in side cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design						
	19.11.1	1.68m deep with S.F.R.C. cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately).						
(a)	19.11.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	2	8	24,702.25	49,404.50	1,97,618.00
10.11	19.12	Extra depth for circular type manhole 1.22m internal dia (at bottom) beyond 1.68m to 2.29m.						
(a)	19.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	2	8	9,861.45	19,722.90	78,891.60
10.12	19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS: 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	120	480	553.70	66,444.00	2,65,776.00
10.13	2.6	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sq.m on plan) including getting out and disposal of excavated earth, lead upto 50m and lift up to 1.5m, as directed by Engineer-in-charge 2.6.1 All kind of Soil	Cum	80	320	177.50	14,200.00	56,800.00
10.14	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50m and lift up to 1.5m.	Cum	80	320	196.00	15,680.00	62,720.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
10.15	2.10	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil and then returning the soil as required in layers, not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus soil as directed within a lead of 50m.						
	2.10.1	All kind of soils						
(a)	2.10.1.2	(Pipes exceeding 80mm dia but not exceeding 300mm dia).	Metre	1080	4320	352.15	3,80,322.00	15,21,288.00
(b)	2.10.1.3	(Pipes exceeding 300mm dia but not exceeding 600mm dia).	Metre	30	120	549.75	16,492.50	65,970.00
10.16	19.21	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3(1 cement: 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete.						
(a)	19.21.1	For pipes 100 to 250 mm diameter	Each	2	8	810.45	1,620.90	6,483.60
(b)	19.21.3	For pipes 350 to 450 mm diameter	Each	2	8	1,328.45	2,656.90	10,627.60
10.17	19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design:						
(a)	19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	20	80	5,957.90	1,19,158.00	4,76,632.00
		TOTAL OF SEWERAGE AND DRAINAGE SYSTEM					36,28,146.40	1,54,51,265.60
11.0		WATER SUPPLY / SOIL WASTE & VENT PIPES AND FITTINGS						
11.1	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps including cutting and making good the walls etc.						
		Internal Work - Exposed on Wall						
(a)	18.10.1	15mm dia nominal bore	Metre	320	3352	366.40	1,17,248.00	12,28,172.80
(b)	18.10.2	20mm dia nominal bore	Metre	600	692	437.30	2,62,380.00	3,02,611.60
(c)	18.10.3	25mm dia nominal bore	Metre	296	640	551.70	1,63,303.20	3,53,088.00
(d)	18.10.4	32mm dia nominal bore	Metre	20	400	667.00	13,340.00	2,66,800.00
(e)	18.10.5	40mm dia nominal bore	Metre	20	80	811.90	16,238.00	64,952.00
(f)	18.10.6	50mm dia nominal bore	Metre	1331	3191	1,048.35	13,95,353.85	33,45,284.85
11.2	18.12	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc.						
		External Work						
(a)	18.12.5	40mm dia nominal bore	Metre	20	80	617.05	12,341.00	49,364.00
(b)	18.12.6	50mm dia nominal bore	Metre	20	80	762.15	15,243.00	60,972.00
(c)	18.12.7	65mm dia nominal bore	Metre	10	40	896.60	8,966.00	35,864.00
(d)	18.12.8	80mm dia nominal bore	Metre	120	480	1,041.70	1,25,004.00	5,00,016.00
11.3	18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.						
		Internal work -						
(a)	18.7.1	15 mm dia nominal bore	Metre	50	200	286.80	14,340.00	57,360.00
(b)	18.7.2	20 mm dia nominal bore	Metre	80	320	335.00	26,800.00	1,07,200.00
(c)	18.7.3	25 mm dia nominal bore	Metre	30	160	401.55	12,046.50	64,248.00
(d)	18.7.4	32 mm dia nominal bore	Metre	20	80	518.75	10,375.00	41,500.00
(e)	18.7.5	40 mm dia nominal bore	Metre	20	80	702.95	14,059.00	56,236.00
(f)	18.7.6	50 mm dia nominal bore	Metre	20	80	934.15	18,683.00	74,732.00

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
11.4	18.32	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design						
(a)	18.32.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	4	16	1,992.60	7,970.40	31,881.60
11.5	18.38	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work						
(a)	18.38.1	15mm nominal bore	Metre	320	3352	19.40	6,208.00	65,028.80
(b)	18.38.2	20mm diameter pipe	Metre	600	692	23.25	13,950.00	16,089.00
(c)	18.38.3	25mm nominal bore	Metre	296	640	30.25	8,954.00	19,360.00
(d)	18.38.4	32mm diameter pipe	Metre	20	400	36.35	727.00	14,540.00
(e)	18.38.5	40mm nominal bore	Metre	20	80	42.65	853.00	3,412.00
(f)	18.38.6	50mm nominal bore	Metre	1331	3191	51.00	67,881.00	1,62,741.00
11.6	18.40	Painting G.I. pipes and fittings two coats of anti-corrosive bitumestic paint of approved quality.						
(a)	18.40.5	40mm nominal bore	Metre	20	80	25.25	505.00	2,020.00
(b)	18.40.6	50mm nominal bore	Metre	20	80	30.50	610.00	2,440.00
(c)	18.40.7	65mm nominal bore	Metre	10	40	37.85	378.50	1,514.00
(d)	18.40.8	80mm nominal bore	Metre	120	480	44.00	5,280.00	21,120.00
11.7	18.41	Providing and filling sand of grading zone V or coarser grade all-round the G.I. pipes in external work.						
(a)	18.41.5	40mm nominal bore	Metre	20	80	167.00	3,340.00	13,360.00
(b)	18.41.6	50mm nominal bore	Metre	20	80	173.25	3,465.00	13,860.00
(c)	18.41.7	65mm nominal bore	Metre	10	40	273.45	2,734.50	10,938.00
(d)	18.41.8	80mm nominal bore	Metre	120	480	281.80	33,816.00	1,35,264.00
11.8	18.20	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :						
(a)	18.20.3	25 mm dia.nominal bore	Each	4	16	486.80	1,947.20	7,788.80
11.9	18.37	Constructing masonry Chamber 60x45x50 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for water meter complete with C.I. double flap surface box 400x200x200 mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design						
(a)	18.37.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	2	8	9,698.55	19,397.10	77,588.40
11.10	18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :						
(a)	18.17.1A	20 mm nominal bore	Each	10	40	539.95	5,399.50	21,598.00
(b)	18.17.1	25 mm nominal bore	Each	10	40	622.40	6,224.00	24,896.00
(c)	18.17.2	32 mm nominal bore	Each	4	16	689.60	2,758.40	11,033.60
(d)	18.17.3	40 mm nominal bore	Each	10	40	826.10	8,261.00	33,044.00
(e)	18.17.4	50 mm nominal bore	Each	16	64	1,026.65	16,426.40	65,705.60
(f)	18.17.5	65 mm nominal bore	Each	4	16	1,742.15	6,968.60	27,874.40
(g)	18.17.6	80 mm nominal bore	Each	4	16	2,604.55	10,418.20	41,672.80

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
11.11	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	16	64	298.25	4,772.00	19,088.00
11.12	18.48	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	per litre	50000	160000	11.00	5,50,000.00	17,60,000.00
TOTAL OF WATER SUPPLY / SOIL WASTE & VENT PIPES AND FITTINGS							30,14,965.35	92,12,259.25
12.0	SANITARY FIXTURES							
12.1	17.3	Providing and fixing white vitreous China pedestal type water closet (European Type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P flush bend with fittings and C.I brackets, 40mm flush bend, overflow arrangement with special standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors where required- Ultra low flow dual flush wall or dual flushing with 4/2 LPF (Fixture to be taken as IGBC approved or approved by Engineer Incharge/Architect Incharge)						
(a)	17.3.1	W.C pan with ISI marked white solid plastic seat and lid.	Each	2	8	8,006.60	16,013.20	64,052.80
12.2	17.78	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting,of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etccomplete.	Each	12	48	14,999.15	1,79,989.80	7,19,959.20
12.3	17.1	Providing and fixing water closet squatting pan (Indian type W.C.pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:						
(a)	17.1.1	White vitreous china Orissa pattern W.C. pan of size 580 x 440 mm. with integral type foot rests.	Each	2	8	6,767.40	13,534.80	54,139.20
12.4	17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	6	24	7,979.20	47,875.20	1,91,500.80
12.5	17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. Brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:						
(a)	17.7.1	White Vitreous china Wash basin of size 630 x 450mm with a pair of 15mm C.P brass pillar taps.	Each	16	64	2,648.85	42,381.60	1,69,526.40
(b)	17.7.4	White Vitreous china Flat Back Wash basin of size 550 x 400mm with single 15mm C.P brass pillar taps.	Each	4	16	1,879.20	7,516.80	30,067.20
12.6	17.34	Providing and fixing toilet paper holder.						
(a)	17.34.1	CP Brass	Each	12	48	803.70	9,644.40	38,577.60
12.7	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS : 8931 - 0.5 LPF (presmatic push button). Fixture to be taken as IGBC approved or approved by Engineer Incharge/Architect Incharge.						
(a)	18.49.1	15mm dia nominal bore	Each	16	65	506.80	8,108.80	32,942.00
12.8	18.53	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931						
(a)	18.53.1	15 mm nominal bore	Each	30	120	574.30	17,229.00	68,916.00
12.9	18.21	Providing and fixing uplasticised PVC connection pipe with brass unions						

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
	18.21.2	45 cm length						
(a)	18.21.2.1	15 mm nominal bore	Each	30	120	97.75	2,932.50	11,730.00
12.10	17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink.						
(a)	17.70.1	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	Each	18	72	367.10	6,607.80	26,431.20
12.11	17.10	Providing and fixing stainless steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required.						
(a)	17.10.1	Kitchen sink with drain board						
	17.10.1.3	510 x1040 mm bowl depth 200 mm.	Each	2	8	7,159.00	14,318.00	57,272.00
		TOTAL OF SANITARY FIXTURES					3,66,151.90	14,65,114.40
13.0		RAIN WATER HARVESTING						
13.1	23.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer –in-charge, upto 90 metre depth below ground level.						
	23.1.1	All types of soil						
13.1.1	23.1.1.2	350 mm dia	Mtr	160	640	774.05	1,23,848.00	4,95,392.00
	23.1.2	Rocky strata including Boulders.						
13.1.2	23.1.2.2	350 mm dia	Mtr	160	640	1,792.85	2,86,856.00	11,47,424.00
13.2	23.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	10	40	2,024.50	20,245.00	80,980.00
13.3	23.3	Supplying, assembling, lowering and fixing in vertical position in bore well,unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.						
13.3.1	23.3.3	200 mm nominal size dia.	Mtr	160	640	1,113.35	1,78,136.00	7,12,544.00
13.4	23.5	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	10	40	1,509.80	15,098.00	60,392.00
13.5	23.6	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	10	40	1,538.25	15,382.50	61,530.00
13.6	23.7	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer –in-charge.	cum	10	40	1,538.25	15,382.50	61,530.00
13.7	23.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.						
13.7.1	23.4.3	200 mm nominal size dia.	Mtr	160	640	1,255.70	2,00,912.00	8,03,648.00
13.8	23.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	hour	24	96	1,085.05	26,041.20	1,04,164.80

SCHEDULE-C (SUB HEAD - C1 - Civil DSR Items including Plumbing)								
S.No.	DSR 2023 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2023 (INR)	Amount for Boraki Extension (INR)	Amount for Botanical Extension (INR)
13.9	23.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:						
13.9.1	23.13.3	200 mm dia	Each	10	40	321.15	3,211.50	12,846.00
13.10	23.14	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.						
13.10.1	23.14.3	200 mm clamp.	Each	10	40	2,293.65	22,936.50	91,746.00
13.11	23.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).						
13.11.1	23.15.3	200 mm dia	Each	10	40	357.60	3,576.00	14,304.00
		TOTAL OF RAIN WATER HARVESTING					9,11,625.20	36,46,500.80
14.0		Any other DSR Item					₹ 5,00,00,000.00	₹ 20,00,00,000.00
		Total of C1.1					11,72,19,829.54	47,14,70,303.04

SCHEDULE-C (SUB HEAD - C2 - Horticulture DSR 2025 Items)									
S.No.	Hort DSR 2025 Item No.	Description	Unit	Quantity of Boraki Extension	Quantity Botanical Extension	Rate as per DSR 2025 (INR)	Amount (INR)	Amount (INR)	
1	2.4	Supplying and stacking at site dump manure from approved source, including carriage up to 1 km (manure measured in stacks will be reduced by 8% for payment):							
1.1	2.4.3	Screened through sieve of I.S. designation 4.75 mm	cum	50.00	200.00	₹ 491.65	₹ 24,582.50	₹ 98,330.00	
2	2.7	Fine dressing of the ground	sqm	200.00	800.00	₹ 5.60	₹ 1,120.00	₹ 4,480.00	
3	2.8	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	sqm	200.00	800.00	₹ 79.70	₹ 15,940.00	₹ 63,760.00	
4	2.9	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge.	cum	50.00	200.00	₹ 55.70	₹ 2,785.00	₹ 11,140.00	
5	2.10	Grassing with selection No. 1 grass including watering and maintenance of the lawn for 60 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the good earth shall be paid for separately).							
5.1	2.10.1	In rows 5 cm apart in both directions.	sqm	200.00	800.00	₹ 26.95	₹ 5,390.00	₹ 21,560.00	
6	2.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any, with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :							
6.1	2.14.1	Holes 1.2 m dia and 1.2 m deep	each	50.00	200.00	₹ 362.75	₹ 18,137.50	₹ 72,550.00	
Total of Horticulture work							₹	67,955.00	₹ 2,71,820.00
7		Any DSR Horticulture 2025 Items which are not covered in the BOQ	LS	1000000.00	8000000.00		₹ 10,00,000.00	₹ 80,00,000.00	
SUB TOTAL OF SITE DEVELOPMENT WORKS							₹	10,67,955.00	₹ 82,71,820.00

SCHEDULE-C (SUB HEAD - C3 - Lumpsum provision for E&M work under DSR 2025)				
S/NO.	DSR 2025 (Code No.)	Description	Unit	Amount in Rs.
	1.0	Any other E&M DSR -2025 items		
1.1	1.3	Lumpsum provision for E&M works under DSR 2025 for all work related to finishing works, uncharted utilities, maintenance of public roads etc., or any other items/works which are not covered in Schedule A & B and is to be executed as per the direction of the Engineer-in-charge.		
		Depot Station to Boraki MMTH	LS	50,00,000.00
		Botanical Garden to Noida Sec 142	LS	1,50,00,000.00
		TOTAL AMOUNT OF ANY OTHER E&M WORKS UNDER DSR-2025 ITEMS		2,00,00,000.00

CONTRACT NO: NGNECC-01 - Part Design & Construction of Elevated Viaduct and 10 nos. of Elevated Stations for Extension Projects of NMRC's Aqua Line from Botanical Garden to Noida Sec-142 (from Chainage (-) 383.959 to 12130.143) and from Depot Station to Boraki MMTH (Chainage 28678.253 to 31263.482).

E Tender No.: NMRC/Projects/NGNECC/2026/457

**ANNEXURE 13A
PROFORMA FOR STATEMENT OF MINOR DEVIATIONS
(Refer Clause C 2.2 and C15.1 of ITT)**

The following are the particulars of minor deviations from the requirements of the Tender Document:

Sr. No	Clause	Deviations	Price adjustment for each deviation/s

Note:

1. The Tenderer shall indicate price adjustment against each deviation in Annexure 13A of BOQ. This price is the price which the tenderer shall reduce from this tender price if deviation(s) is/are accepted by the Employer.
2. Where there is no deviation, please indicate 'No Deviations'. In case, Performa of deviations is left as blank, it will be construed that the tenderer has not proposed any deviations from tender documents.
3. If the tenderer proposes deviations in tender documents, and/or any other terms and conditions of the tender, other than in this Annexure, it will have no effect.
4. All deviations have been listed and priced in the financial proposal and deviations not priced will be treated as null and void and stand withdrawn.