

The Tata Power Company Limited Invites Tenders through E-Tender Two-Part bidding process from interested bidders (with manufacturing / assembling facilities in India) for the following Civil package required for its Transmission Division: -

Procedure for Participating in Tender

Tender Enquiry No.	Work Description	EMD (Rs.)	Tender Participation Fee (Rs.)	Last date & time for Payment of Tender Participation Fee*
CC27TP004	General civil works for construction of 220 KV GIS building at Powai.	10,00,000 /-	2,000/-	1500 Hrs. Monday, 20 th April 2026.

*** Interested bidder is strongly advised not to wait by above time and purchase the tender immediately to get the link for bid submission. This will enable them to communicate/raise queries against the subject tender in time.**

Procedure for Participating in Tender. Following steps to be done before last date for purchase of tender,

- Interested bidder to refer to the Section C: "Pre-Qualification Requirement" (PQR).
- Eligible and Interested Bidder to submit duly signed and stamped letter on Bidder's letterhead indicating,
 - Tender Enquiry number.
 - Name of authorized person.
 - Contact number.
 - e-mail id.
 - Details of submission of Tender Participation Fee.
- Non-Refundable Tender Participation Fee, as indicated in table above, to be submitted in the form of Direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference number –

Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

E-mail with necessary attachment of 1 and 2 above to be send to tushar.patil@tatapower.com & with copy to vaishali.Kachare@tatapower.com before “Last date and time for Payment of Tender Participation Fee”.

Interested bidders to submit Tender Participation Fee and Authorization Letter before Last date and time as indicated above after which link from Tata Power E-Tender system (Ariba) will be shared for further communication and bid submission.

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc will happen only will be strictly done only with interested bidders who have done the above steps in time with Authorized Person only through Tata Power E-Tender system (Ariba). User manual to guide the bidders to submit the bid through e-Tender system (Ariba) is also enclosed.

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above steps (Payment of tender fee and submission of letter with requisite details) to participate in the Tender.

Also, it may be strictly noted that once date of “Last date and time for Payment of Tender Participation Fee” is lapsed no Bidder will be sent link from Tata Power E-Tender System (Ariba). Without this link vendor will not be able to participate in the tender. Any last moment request to participate in tender will not be acknowledged.

Any payment of Tender Participation Fee / EMD by Bidder who have not done the pre-requisite within stipulated timeline will not be refunded.

Also, all future corrigendum’s to the said tender, if any, will be informed on Tender section on website <https://www.tatapower.com>

Earnest Money Deposit (EMD) is not to be submitted now and is required at a later stage along with tender submission in the form of Bank Guarantee and NEFT.

Package Description:GENERAL CIVIL WORKS FOR 220 KV OUTDOOR GIS AT POWAI					
Tender Reference No -					
Pre - Qualification Requirement (PQR) - Please note that the PQR is for information only and the documentary evidence to ascertain meeting of the requirement has to be submitted along with the bid and not along with the tender fee					
					To be filled up by Vendor
Sr No	Parameter	Tata Power Requirement	Documents to be submitted by vendor to ascertain meeting of Pre-Qualification Requirement	Vendor Submission against Tata Power PQR Requirement	Documents submitted by Vendor to ascertain meeting of Pre-Qualification Requirement
1	2	3	4	5	6
(A)	Experience	<p>a) Bidder should have successfully completed supply, construction and commission of projects involving Civil, structural and Architectural works for RCC building, Transformer foundation, firewall and underground & above ground tanks, roads drains etc. in the past 8 calendar years.</p> <p>b) The Bidder must have successfully executed the following quantum of works (including supply of all materials) on cumulative basis during the past 8 (Eight) calendar years :</p> <p>Excavation - 10000 Cubic meter RCC - 4000 cubic meters Reinforcement works – 400 Tons Structural steel works - 75 Tons</p> <p>Bidder to submit credentials for supporting the above noted criteria. Owner has the right to reject the bid in case it is observed that the Bidder does not meet the relevant experience for the subject works</p>	Bidder to submit credentials for supporting the noted criteria. Owner has the right to reject the bid in case it is observed that the Bidder does not meet the relevant experience for the subject works	PO Details	PO Details
(B)	ISO Certifications	Bidder should possess ISO-9001, ISO-14001 and OHSAS-18001 / ISO-45001 Certification or they should provide an undertaking that they will obtain these certifications for their organization if the work is awarded to them.	Bidder to submit credentials for supporting the noted criteria. Owner has the right to reject the bid in case it is observed that the Bidder does not meet the relevant experience for the subject works.	ISO certificates	ISO certificates
(C)	Commercial Capability	Average annual turnover of the Vendor for last three financial years shall not be less than Rs. 10 crores.	Profit and Loss Statements, Balance Sheet, for the Three (3) preceding financial years duly audited and approved by Authorized Audit Firm / CA.		

Note:-

- 1) The Prequalification Criteria published along with the tender "In Section C.1 Techno-Commercial PQR" is the total & complete pre-qualification requirement for the tender and shall prevail over any other/additional pre-qualification requirement mentioned elsewhere in the tender.
- 2) Tata Power reserves the right to review and approve / reject the Bidder based on Document Submission.
- 3) In case the bidder has a previous association with any of the Tata Group companies for similar products and services, the performance feedback for that bidder by Tata Group companies shall only be considered for evaluation, irrespective of performance certificates issued by any third organization.
- 4) Apart from the above PQR bidder must also qualify in Safety evaluation. Details will be shared along with tender documents.

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
I	EARTHWORK		
1	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER#s Premises in ordinary earth, soft/weathered rock, which includes rock/boulders/slag/slate/laterite and gravel/ clay/ murrum of all kinds, rubble, concrete debris, scrap steel, clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER#s standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER#s Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. Vendor has to submit shoring design for approval without any additional cost</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>From existing ground level to a depth of 3 m</p>	3477	M3
2	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER#s Premises in ordinary earth, soft/weathered rock, which includes rock/boulders/slag/slate/laterite and gravel/ clay/ murrum of all kinds, rubble, concrete debris, scrap steel, clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER#s standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER#s Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. Vendor has to submit shoring design for approval without any additional cost</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>Deeper than 3.0 m to a depth of 6 m</p>	921	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
3	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in ordinary earth, soft/weathered rock, which includes rock/boulders/slag/slate/laterite and gravel/ clay/ murrum of all kinds, rubble, concrete debris, scrap steel, clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. Vendor has to submit shoring design for approval without any additional cost</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>Deeper than 6.0 m to a depth of 7.5 m</p>	132	M3
4	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by ordinary chiseling; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc.</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>From existing ground level to a depth of 3 m</p>	535	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
5	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by ordinary chiseling; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>Deeper than 3.0 m to a depth of 6 m</p>	154	M3
6	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by ordinary chiseling; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc. The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>Deeper than 6.0 m to a depth of 7.5 m</p>	22	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
7	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by mechanical chiseling by pneumatic/hydraulic rock breaker; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc.</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal</p>	1604	M3
8	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by mechanical chiseling by pneumatic/hydraulic rock breaker; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc.</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>Deeper than 3.0 m to a depth of 6 m</p>	461	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
9	<p>Excavation below existing Ground Level for foundations, drains, compound wall and underground tanks or any other structure within the OWNER's Premises in hard rock by mechanical chiseling by pneumatic/hydraulic rock breaker; clearing away vegetation trees of all girth, bushes, underground roots, stumps etc., including shoring, strutting and all safety provisions, by providing adequate slopes using hard barricading as per OWNER's standards including careful handling of underground utilities etc., including backfilling as directed by the Owner, stacking and multiple handling of earth within the OWNER's Premises and disposal of surplus earth beyond plot boundary in MCGM approved area etc. as directed by Engineer-in-charge, including dewatering, preparing the bed for foundation etc. Payment for earth works shall be on net plan area of PCC. No payment will be made for side slopes, working area etc.</p> <p>The rate shall be inclusive of taking permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.</p> <p>Deeper than 6.0 m to a depth of 7.5 m</p>	66	M3
10	<p>Providing and filling well graded excavated earth suitable for backfill including compacting in layers of 300mm with mechanical equipments to achieve a proctor density of 95% etc., complete as directed by the Engineer.</p>	11500	M3
11	<p>Providing & laying dry trap granite/quartzite/gneiss/rubble stone soling with maximum 230mm size hard stone set in regular lines, hand packed and interstices thoroughly filled with small chips including filling in with good quality murum and compacted with 8 to 10 tonne rollers and spreading 12mm thick layer of grit on top, etc. complete in all aspects as directed by the Engineer-in-Charge.</p>	457	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
12	<p>Supplying and Providing pre-constructional anti-termite treatment, and creating a chemical barrier, under and on sides of trenches, wall footings, top surface of plinth filling, including junction of wall and floor along the perimeter of building, with approved emulsifiable insecticides at the rates and concentrations as per IS.6313 (Part-II) and as directed by Engineer. (Treated plinth area of the building at ground floor only shall be measured)</p> <p>(Contractor to submit guarantee on Rs. 1000 stamp paper, guaranteeing against termite attack for a period of 5 years.)</p>	1275	M2
13	<p>Dismantling and disposal of brick masonry at all levels and listing the scrap material as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty & Collector's permission, stacking, spreading and backfilling, etc.</p> <p>(Contractor to take permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	5	M3
14	<p>Dismantling and disposal of plain concrete at all levels and listing the scrap material as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty & Collector's permission, stacking, spreading and backfilling, etc.</p> <p>(Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	5	M3
15	<p>Dismantling and disposal of reinforced cement concrete including reinforcement at all levels, listing the scrap material and returning the reinforcement steel to Owner's store at Dharavi/Tata Power store as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty & Collector's permission, stacking, spreading and backfilling, etc.</p> <p>(Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	15	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
16	<p>Dismantling and disposal of structural steel, listing the scrap material and returning the structural steel to Owner's store at Dharavi/Tata Power store/Tata Power store as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty & Collector's permission, stacking, etc.</p> <p>(Contractor to take permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	10	MT
17	<p>Dismantling and disposal of rubble masonry above ground and listing the scrap material as and returning to Owner's store at Dharavi/Tata Power store as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty & Collector's permission, stacking, etc.</p> <p>(Contractor to take permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	1280	M3
18	<p>Dismantling and disposal of rubble soiling/ wall/ foundation below ground and listing the scrap material as and returning to Owner's store at Dharavi/Tata Power store as directed by the Engineer-in-Charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty & Collector's permission, stacking, etc.</p> <p>(Contractor to take permission from Collector/MCGM or any other authorities beyond MCGM limit for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)</p>	20	M3
19	<p>Providing all labour tools and tackles for removing chain link fence and returning the scrap to stores as directed by EIC</p>	25	M2
20	<p>DISMANTLING AND STACKING OF AC/CGI SHEETS, INCLUDING ALL LEAD, LIFT & SCAFFOLDING, MAINTAINING HOUSEKEEPING, ETC, HAVE TO RETURN ALL USABLE ITEM BACK TO TATA POWER'S STORES BY PREPARING RFW COMPLETE INCLUDING TOOLS TACKLES, TRANSPORTATION AND DISPOSAL OF MATERIAL WITHIN PREMISES AS DIRECTED BY EIC.</p>	157	M2

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
21	Providing and laying Ready Mix Concrete of M15 Grade using 20 mm downgraded aggregates above ground for coping to plinth or parapet, transomes and mullions, for protection of dowel bars of slabs, beams, columns, etc. moulded or chamfered as per drawing or as directed by the Engineer-in-Charge including shuttering, formwork, vibrating, compacting, curing, etc. complete for all lifts and levels.	20	M3
22	Providing and laying Ready Mix Concrete, M15 Grade using 20 mm downgraded aggregates below ground for blinding layer under R.C. foundation and bedding, bottom of pits, sumps, chambers, trenches, anchor blocks, rubble masonry and brick walls etc. as per drawing or as directed by the Engineer-in-Charge including vibrating, compacting, curing, shuttering if required, etc. complete.	249	M3
23	Providing and placing in position Ready Mix Concrete of M30 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): All foundations including bottom slabs of trenches, Underground tanks, pile caps, grade slabs, etc.	1150	M3
24	Providing and placing in position Ready Mix Concrete of M30 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): Base raft,	50	M3
25	Providing and placing in position Ready Mix Concrete of M30 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): RCC columns, pedestals, brackets, walls	502	M3
26	Providing and placing in position Ready Mix Concrete of M30 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc.	710	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
27	Providing and placing in position Ready Mix Concrete of M30 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): RCC sunshades, Architectural features like fins, pardi etc.	285	M3
28	Providing and placing in position Machine Mix Concrete of M30 grade using digital weight batching for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer-in-Charge for the following items (excluding reinforcement and structural steel): All foundations including bottom slabs of tunnels, trenches, Underground tanks, pile caps, grade slabs, etc.	10	M3
29	Providing and placing in position Machine Mix Concrete of M30 grade using digital weight batching for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer-in-Charge for the following items (excluding reinforcement and structural steel): Base raft and wall with approved water proofing compound (Finish type F1)	10	M3
30	Providing and placing in position Machine Mix Concrete of M30 grade using digital weight batching for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer-in-Charge for the following items (excluding reinforcement and structural steel): RCC columns, pedestals, brackets, walls	10	M3
31	Providing and placing in position Machine Mix Concrete of M30 grade using digital weight batching for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer-in-Charge for the following items (excluding reinforcement and structural steel): RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc.	10	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
32	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): All foundations including bottom slabs of tunnels, trenches, Underground tanks, pile caps, grade slabs, etc.	10	M3
33	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): RCC columns, pedestals, brackets, walls	10	M3
34	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): RCC slabs, staircase steps, waist slabs, beams, lintels, chajjas, etc.	10	M3
35	Providing and placing in position Ready Mix Concrete of M25 grade for all shapes, at all levels above or below ground including admixtures if any, centering, shuttering, scaffolding, vibrating, compacting, curing, dewatering, levelling, cutouts, openings, finishing, removal of formwork, etc. complete, for all lead and lifts, to obtain class F1 finish with leak proof concrete as per specifications/drawings and as directed by the Engineer- in-Charge for the following items (excluding reinforcement and structural steel): RCC sunshades, Architectural features like fins, pardi etc.	10	M3
36	Supplying, Providing and erecting in position pre-cast concrete trench cover units of specified sizes and thickness using reinforced cement concrete of grade M25 with 20 mm down graded coarse aggregates and peripheral flats of 3mm thick including form-work to give fair and smooth finish, casting, vibrating using surface vibrators, curing, storing, providing lifting arrangement, loading/ unloading, transporting, load testing etc. Complete as per specification and as directed by the Engineer.	70	M3

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
37	Providing and fixing in position 25mm thick specifically extruded high performance polymer based sheet of supreme make in expansion joint, of minimum density 28 Kg/m ³ , using double sided adhesive of 2 mm x 25 mm x 25 mm at four places per m ² to the casted surface including applying & filling polysulphide based sealant with primer etc. complete, as per specifications/drawings and as directed by the Engineer-in-Charge.	25	M ²
38	P/A Crystalline water proofing system Supplying all materials, adding crystalline water proofing system for concrete works applicable for RCC raft, side walls of basement, cable trenches, tunnels, underground tanks, over head tanks, roof slabs, etc as per manufacturer's guidelines. Contractor to provide a leak proof warranty for a period of minimum 10 years for all the concrete waterproofing works covered under this item. (Note: Concrete will be paid as per RCC Items of BOQ issued with PO. This item is only for adding crystalline waterproofing compound)	674	KG
39	Making holes/openings in brick wall (depth of hole not exceeding 450 mm) and finishing the same with plaster in CM 1:4 as directed by Engineer and at all locations and levels. Greater than 100 mm dia. But less than 300 mm dia. Or equivalent in area (with fire proofing brick).	10	No
40	Making holes/openings in brick wall (depth of hole not exceeding 450 mm) and finishing the same with plaster in CM 1:4 as directed by Engineer and at all locations and levels. Greater than 300 mm dia. But less than 750 mm dia. Or equivalent in area (with fire proofing brick).	10	No
41	Drilling and/or making holes/ openings in reinforced concrete of any grade (depth of hole not exceeding 500 mm) and finishing the same with plaster in CM 1:4 in slabs, beams, columns, foundations, etc. Of existing/ already cast structures as directed by Engineer at all locations and levels. Greater than 50 mm dia. But less than 100 mm dia.	10	No
42	Drilling and/or making holes/ openings in reinforced concrete of any grade (depth of hole not exceeding 500 mm) and finishing the same with plaster in CM 1:4 in slabs, beams, columns, foundations, etc. Of existing/ already cast structures as directed by Engineer at all locations and levels. Greater than 100 mm dia. But less than 300 mm dia.	10	No
43	Grouting of the bases of equipment / stanchions including anchor bolt pocket/ pipe sleeves etc. With premixed free flowing non-shrinking grout of the following strengths as per the manufacturer's instructions. Grout having a minimum strength of 30 N / mm ²	5	m ³
44	Grouting of the bases of equipment / stanchions including anchor bolt pocket/ pipe sleeves etc. With premixed free flowing non-shrinking grout of the following strengths as per the manufacturer's instructions. Grout having a minimum strength of 45 N / mm ²	5	m ³

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
45	Providing and placing in position plum concrete of required thickness, at all depths with 33% boulders of size 150mm to 230mm and 67% Ready Mix Concrete of M15 grade including shuttering, vibrating, compacting, curing, dewatering, levelling, finishing, removal of formwork, etc. complete as per specifications/drawings and as directed by the Engineer-in-Charge.	5	M3
46	"Supply, Cleaning, cutting, bending, as per drawings and placing in position High yield strength deformed reinforcement bars conforming to IS: 1786 at all locations and levels including binding with soft annealed 18G black wire, etc. Complete as shown on drawings and as directed by the Engineer (No payment will be made for staper bar, layer pin, chair, tie rods and other supports, binding wires, laps) a) For HYSD bars conforming to grade Fe 500D of IS 1786"	355	MT
47	Providing structural steel work in rolled / builtup sections fixed with connecting plates or angles, gussets, cleats, channels as per drawings including cutting, fabricating, hoisting, erecting at all levels and locations, fixing in position, making welded/bolted connections and with two coats of zinc phosphate primer (One shop coat and one site coat & Paint DFT as per FQP) and painting with finishing coats of synthetic enamel paint to get desired finish, including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge.	140	MT
48	Supplying, Fabricating as per specifications and fabrication drawings, transporting to site and erecting structural steel members for all types of structure and for all heights & at all levels including provision of necessary erection bolts, fixing bolts, nuts, washers, cleats, stiffeners, gussets, base plate, and all necessary operations but not limited to preheating as per specifications, straightening, bending, cutting, drilling, grinding, machining if specified, welding etc. complete (weight of the bolts and nuts and welds shall not be considered for payment) including hot dipped galvanisation with minimum 610 gm/ sqm. Minimum yield strength 250 N/mm ²	15	MT
49	Supplying, cutting, fabricating and erecting M.S. anchor bolts, pipe sleeves, channels, angles, plates, rails, beams and all other types of inserts in concrete members and placing them in position as specified on drawings at all locations and at all levels, etc. including two coats of approved oil paint over one coat of zinc phosphate primer with finishing coats of synthetic enamel paint to get desired finish over exposed surfaces, including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge.	42	MT

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
50	<p>P/L GI-C Class pipe inserts "Supplying, cutting, fabricating and erecting M.S. anchor bolts, pipe sleeves, channels, angles, plates, rails, beams and all other types of inserts in concrete members and placing them in position as specified on drawings at all locations and at all levels, etc. including two coats of approved oil paint over one coat of zinc phosphate primer with finishing coats of synthetic enamel paint to get desired finish over exposed surfaces, including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge. but for GI Class -C pipe inserts."</p>	1	MT
51	<p>Providing and fixing 2 hrs Fire rated protection of specified thickness over structural steel as per ASTM E119 using cementitious vermiculite concrete, water based Structural Steel Compound to be applied over pre-primed surface already coated with two coats of Epoxy primer at Contractor's Fabrication site, including scaffolding / access, preparation of surfaces and application as per Manufacturer's specifications, etc. complete.</p>	1	M2
52	<p>Providing and applying, 2 hrs Fire rated protection of specified thickness as per BS 5950-8:2003, using vermiculite or intumescent paint including necessary surface preparation, scaffolding, etc., complete as per specifications and as directed by the Engineer-in-Charge.</p>	150	M2
53	<p>Supplying, fabricating, delivering to site, loading, unloading, etc. and erecting chequered plate of diamond shape pattern including all operations but not limiting to such as straightening, cutting, drilling, grinding, welding (weight not included), making holes for lifting, cleaning and preparing surface by power tools and wire brushing and applying on the soffit of chequered plate one shop coat of zinc phosphate primer after fabrication and one coat of the same after erection and finishing coats of synthetic enamel paint of approved shade to get desired finish, etc. complete as per specifications and as directed by the Engineer-in-Charge.</p>	3	MT
54	<p>Providing and fixing the rebars of RE 500 of Hilti at required locations and levels including drilling the hole, etc. complete as directed by the Engineer-in-Charge.' 10 dia</p>	50	Nos
55	<p>Providing and fixing the rebars of RE 500 of Hilti at required locations and levels including drilling the hole, etc. complete as directed by the Engineer-in-Charge.' 12 dia</p>	50	Nos
56	<p>Providing and fixing the rebars of RE 500 of Hilti at required locations and levels including drilling the hole, etc. complete as directed by the Engineer-in-Charge.' 16 dia</p>	50	Nos

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
57	<p>Supplying, laying and fixing of 0.55mm thick coloured galvolum sheeting system for roofing including all accessories such as ridge pieces, eaves, barge boards, expansion joint pieces, corner pieces, apron pieces, gutter, etc. with galvanised steel fasteners/bolts (of self-tapping type), seam, bolts and nuts, 8 mm dia. GI Limpet washers and bitumen washers, etc. complete including cutting to shape and size required including necessary sealants, taping, flashing, etc. complete as per design and specifications & colour as approved by Engineer-in-Charge, as specified on drawings at all locations and at all levels including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge (Area measured as laid. No overlapping shall be paid. Bidder shall indicate the rate for laying and fixing).</p>	1400	M2
58	<p>Supplying, laying and fixing of 0.55mm thick coloured galvolum sheeting system for or Vertical and inclined side sheeting / Cladding. including all accessories such as ridge pieces, eaves, barge boards, expansion joint pieces, corner pieces, apron pieces, gutter, etc. with galvanised steel fasteners/bolts (of self-tapping type), seam, bolts and nuts, 8 mm dia. GI Limpet washers and bitumen washers, etc. complete including cutting to shape and size required including necessary sealants, taping, flashing, etc. complete as per design and specifications & colour as approved by Engineer-in-Charge, as specified on drawings at all locations and at all levels including scaffolding, preparation of surfaces, transporting, loading, unloading etc. complete as directed by the Engineer-in-Charge (Area measured as laid. No overlapping shall be paid. Bidder shall indicate the rate for laying and fixing).</p>	5	M2
59	<p>Providing and erecting Chain link fencing at specified loacations in the plot of 2.4 meter height with galvanized iron, chain link of size 50mm x 50mm, 8 gauge thick and fixed 75mm above ground level and vertical mild steel angles of 65 x 65 x 6 mm size embedded in cement concrete block of M15 mix of size 45 x 45 x 60 cm at 2.5m center to center with iron bar of 16mm dia. as hold-fast including welding link with angle frame with 30cm center to center, with pit excavation 45 x 45x 60 cm, nuts and bolts and horizontal mild steel angles at top and bottom of 25 x 25 x 5 mm size vertical mild steel flat 35 x 5 mm and 25 x 5 mm horizontal including cross support of 40 x 40 x 6 mm angles both sides at interval of 7.5m & at every corner or bend embedded in concrete blocks of M15 mix of size 45 x 45 x 60 cm including three coats of oil paint, etc. complete.</p>	115	M

BOQ TABLE 1- CIVIL, STRUCTURAL & ROAD WORKS

Sr. No.	Description	Quantity	Unit
60	Providing and erecting Chain link fencing at specified loacations above compound walls, etc of 1.2 meter height with galvanized iron chain link of size 50mm x 50mm, 8 gauge thick and fixed 75mm above compound wall and vertical mild steel angles of 65 x 65 x 6 mm size embedded in cement concrete block of M15 mix of size 45 x 45 x 60 cm at 2.5m center to center with iron bar of 16mm dia. as hold-fast including welding link with angle frame with 30cm center to center, and horizontal mild steel angles at top and bottom of 25 x 25 x 5 mm size vertical mild steel flat 35 x 5 mm and 25 x 5 mm horizontal along with 600mm diameter concertina coil at top of chain link fencing, including three coats of oil paint, etc. complete.	25	M
61	Providing & Fixing of Decking Sheet with all required tool tackles , transportation erection all inclusive as directed by TATA power in-charge. Deck Sheet Specification JSW Make (0.8mmthk ,345MPa, 150GSM) or equivalent (Approval to be taken From Engineer or Design team).	450	M2
62	Providing & Fixing of Edge angle of primary manufacturer (TATA , JSW etc) as directed and approved by Tata Power Engineer in-charge.	400	M
63	Providing & Fixing of MS studs (100m Length 19mm dia) with all required tool tackles , Welding , transportation as directed by TATA Power Engineer incharge.	220	Nos
64	Providing all tools, tackles, materials for fixing of 16 SWG SS wire mesh of opening size 12.5 mm x 12.5 mm fixed with 12 mm U bolts as mentioned in the drawing or as directed by EIC at any height incl scaffolding, ladder, machinery etc.	800	M2
65	Providing & fixing aluminum flat of 50 x 6 mm on roof sheet, rate shall be inclusive of man, material, GI threaded screw with rubber washer, drilling hole @ 2m c/c	350	M
66	Supply & fixing 75MM rapicon precast wall panel Supply & fixing 75MM rapicon precast wall , including fixing laying, with silicon jointing as per directed by TPC	250	M2

BOQ TABLE 2- Architectural works

	Description	Quantity	Unit
1	Providing Brick Masonry, 230 mm thick and above, in cement mortar 1:5 (1 cement : 5 coarse sand) using best quality locally available first class kiln bricks having crushing strength of 35 Kg/sqcm and water absorption not more than 20%, at all levels in foundation, plinth and steps including dewatering, scaffolding, raking of joints, curing, etc. complete.	45	M3
2	Providing Flyash Block Masonry (Charbhujia Infrastructure make or equivalent make), 190 mm thick and above in cement mortar 1:5 (1 cement: 5 coarse sand) using best quality locally available flyash blocks having crushing strength of 50 Kg/sqcm and water absorption not more than 10%, at all levels in foundation, plinth and steps including dewatering, scaffolding, raking of joints, curing, etc. complete.	15	M3
3	Providing Brick Masonry, 230 mm thick and above, in cement mortar 1:5 (1 cement: 5 coarse sand) using best quality locally available first class kiln bricks having crushing strength of 50 Kg/sqcm and water absorption not more than 20%, in superstructure for walls, parapets, etc. , at all levels and locations, including scaffolding, curing, raking of joints, providing RCC transomes and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transomes and mullions shall be paid separately in respective items)	25	M3
4	Providing Flyash Block Masonry (Charbhujia Infrastructure make or equivalent make), 190 mm thick and above in cement mortar 1:5 (1 cement: 5 coarse sand) using best quality locally available flyash blocks having crushing strength of 50 Kg/sqcm and water absorption not more than 10%, in superstructure for walls, parapets, etc., at all levels, including scaffolding, curing, raking of joints, providing RCC transomes and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transomes and mullions shall be paid separately in respective items)	25	M3
5	Providing Brick Masonry 115 mm thick in cement mortar 1:4 (1 cement : 4 coarse sand) using best quality locally available first class kiln bricks having crushing strength of 35 Kg/sqcm and water absorption not more than 20%, in superstructure for walls, parapets, etc., at all levels including scaffolding, curing, raking of joints, providing RCC transoms and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transoms and mullions shall be paid separately in respective items)	25	M2

6	Providing Block Masonry (Charbhuj Infrastructure make or equivalent make) 110 mm thick in cement mortar 1:4 (1 cement : 4 coarse sand) using best quality locally available first class kiln blocks having crushing strength of 50 Kg/sqcm and water absorption not more than 10%, in superstructure for walls, parapets, etc., at all levels including scaffolding, curing, raking of joints, providing RCC transoms and mullions of grade M15 including shuttering, etc. complete. (reinforcement and concrete for transoms and mullions shall be paid separately in respective items)	20	M2
7	Providing internal cement plaster 12 mm thick plain finish in single coat in cement mortar 1:4 with hacking, surface preparation, including scaffolding and curing, grooves, bands, drip moulds, including providing and fixing chicken mesh of 22 gauge, with about 15 cm width of approved quality at the junction of reinforced cement concrete members and brick work, including fixing mesh in position by necessary drilling in concrete/ B.B masonry, etc. complete.	1850	M2
8	Providing & applying 20 mm thick external sand faced plaster in cement mortar 1:4 using addition of integral water proofing compound 100% virgin polypropylene fibrillated fibres @125 gm/bag of cement as per manufacturer's specifications water proofing compound of approved make as per the manufacturer's specifications, in two layers (first layer of 14 mm thickness and the second layer of 6 mm thickness) on all types of external surfaces using coarse, clean sand including surface preparation, curing both the coats, bends, grooves, drip moulds and all scaffolding, curing, including providing and fixing chicken mesh of 22 gauge, with about 15 cm. width of approved quality at the junction of reinforced cement concrete members and brick work, including fixing mesh in position by necessary drilling in concrete/ B.B masonry, etc. complete.	3170	M2
9	Providing and laying 50 mm thick heavy duty Ironite floor finish of 1mx1m panel size with Ironite hardener topping, under layer of 38 mm thick cement concrete of grade M25 and top layer of 12 mm thick metallic concrete of mix 1:2 (1 cement hardener mix : 2 stone aggregate 6 mm nominal size) by volume with metallic hardening compound of approved quality mixed as per manufacturer's recommendation including cement slurry, side shuttering, rounding off edges and glass strips of 50mm height x 5mm thick in required panels, etc. complete.	10	M2
10	Providing and laying 50 mm thick heavy duty Ironite floor finish of 1mx1m panel size with Ironite hardener topping, under layer of 38 mm thick cement concrete of grade M25 and the top 5 mm thickness shall be Heavy duty chemical and abrasion resistant epoxy resin floor screed Nito floor TF 30 topped with Nito floor FC 150, manufactured by M/S Fosroc or its approved equivalent for operating floor including all connected works as per manufacturer recommendations	166	M2

11	CISE, Providing supplying and application of dielectric flooring of 2mm thick including surface preparation, repairing to construction joint, crack sealing , pothole ceiling , etc. of minimum current resistance of 45kva as per BDV Requirement.	2250	M2
12	<p>"Providing and fixing Anti static false flooring 300 mm high with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitle Everest or equivalent consisting of:</p> <p>a) pedestal supports made of 25 od, 1.5 mm thk MS seamless pipe welded vertically at the centre of 100 x 100 x 3 mm thick die pressed MS base plate with hard PVC bushing on top free end.</p> <p>b) Jack heads made of pressure die cast, galvanised, square , 2 mm the MS sheet, with 4 Nos 2 x 10 mm die cut notches, 90 degrees apart, to hold the stringers. And with a centrally welded M16 x100 mm stud with nut for level adjustment up to +/- 25 mm.</p> <p>c) Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head.</p> <p>d) Truly levelled and aligned removable composite floor panels of 610 x 610 x 31 mm made of 1.5 mm thick MS die formed bottom tray, 1.5 mm thick top plate with cavity filled with specially designed light weight concrete.</p> <p>e) The top surface shall be finished with non combustible high pressure laminate antistatic tiles conforming to BS-2050 of 1998 table III Including making steps including treads and risers or ramp, making openings/ cutouts, levelling, cutting, drilling, cleaning, etc. complete. same as above but 600 high"</p>	25	M2
13	<p>"Providing and fixing Anti static false flooring 600 mm high with load bearing capacity of 1200 kg concentrated load and 2000 kg /sqm distributed load, of Unitle Everest or equivalent consisting of:</p> <p>a) pedestal supports made of 25 od, 1.5 mm thk MS seamless pipe welded vertically at the centre of 100 x 100 x 3 mm thick die pressed MS base plate with hard PVC bushing on top free end.</p> <p>b) Jack heads made of pressure die cast, galvanised, square , 2 mm the MS sheet, with 4 Nos 2 x 10 mm die cut notches, 90 degrees apart, to hold the stringers. And with a centrally welded M16 x100 mm stud with nut for level adjustment up to +/- 25 mm.</p> <p>c) Stringers made out of die pressed channels 25x25x25 mm with two die pressed notches at the two ends to snap fit to the jack head.</p> <p>d) Truly levelled and aligned removable composite floor panels of 610 x 610 x 31 mm made of 1.5 mm thick MS die formed bottom tray, 1.5 mm thick top plate with cavity filled with specially designed light weight concrete.</p> <p>e) The top surface shall be finished with non combustible high pressure laminate antistatic tiles conforming to BS-2050 of 1998 table III Including making steps including treads and risers or ramp, making openings/ cutouts, levelling, cutting, drilling, cleaning, etc. complete. same as above but 600 high"</p>	275	M2

14	<p>Providing and applying wall punning up to 12mm thick with approved white cement-based putty, including surface preparation, application of Bond Aid, fixing Jali tape at joints and cracks, maintaining plumb line and proper kat kona (corners), forming grooves above skirting, and finishing to a smooth, even surface ready for painting.</p> <p>The rate shall include cost of all materials, labour, scaffolding, protection of adjoining surfaces, cleaning, and all incidental works complete as directed by the Engineer-in-Charge.</p>	2100	M2
15	<p>Providing and applying Cement Based Birla White Putty in two coats over a plastered surface to give a smooth levelled finish to receive paint. Surface to be pre-wetted and made free of any loose particles and stains etc. The cost shall include all labour, materials, etc complete.</p>	2000	M2
16	<p>Providing & applying one coat of Dura life base coat/or equivalent followed by two top coats of ULTIMA PROTEK of Asian paints/or equivalent on all exterior surfaces at all levels, including Cleaning of surface with jet cleaning machine(Bio wash), Opening the Cracks in v groove shape, Filling up the cracks with Crack seal Compound, curing, all scaffolding , etc., complete as per manufacturer's specifications and as directed by the Engineer in-charge. Vendor to submit Paints waterproofing warranty for 10 years and paint performance warranty for 10 years from Asian Paints.</p>	585	M2
17	<p>Providing and applying two coats of first quality Acrylic Washable Internal Paint of approved colour and shade over one coat of primer, including scaffolding, preparing the surface to receive the primer and finishing coats complete.</p>	2033	M2
18	<p>Providing & fixing factory made 2 hour rated fire doors by Shakti Met-Dor / Ahura Mazda or approved equivalent single & double shutter, the door frames will be built into brick or block walls using corrugated TEE anchors not welded to the frames (first fix). Frames may also be fixed on plastered openings with the help of Anchor Fasteners (second fix). Door frames must be supplied to knockdown form with butt joints for bolted assembly at site. Door leaves will be 46mm thk. fully flush, double skin door shell with Lock Seam joints at style edges. In-fill to give the required rigidity and effective acoustics & thermal insulation. Vision glass will be provided in circular / square/ rectangular shape..Stainless steel ball bearing butt hinges 3mm thk. fixed flush to the frame & shutter. Mortise sash lock : OZML-DL1-SS-55 with SS lever handles :make Zone : Model OMH - 11L, Over head door closer - Model : NSK - 6825 ,mortise dead bolt, mortise latch, panic deviceetc. to be provided as required. Concealed extended lever action flush bolts to be provided on top of the door to the leading style. The rate shall include all the necessary hardware, vision glasses, adhesive tapes & silicon sealant complete as described above.</p>	25	M2

19	P/F PVC gutter 7 inch Providing and fixing half round 180 mm uPVC gutter with rubber seal SWR grade-prince or equivalent make inclusive of joint brackets/running outlet/elbows/short stop end/stop end outlet/support bracket/pipe clamp or clamp/side or top bracket rate shall be quoted for man, material, transportation, scaffolding (up to 10 m), machine, screw so as to complete the job	155	M
20	Providing , supplying & fixing of GI Rungs in RCC including necessary arrangement & welding works at all height and as directed by engineer in charge.	50	No
21	CISE, Supplying, fabricating and erecting Tubular Handrailing of height 1200mm of 32 mm dia. and 25 mm dia. NB light class, GI pipes 304 mat finish /brush steel finish consisting of one GI rail and connecting with wall with all necessary GI bends, GI tee joints, GI fixtures, GI fittings, etc. The assembly should be standy and with smooth surfaces at joints/ junctions. All GI sections, pipes etc to be supported with documents for the quality. Note: Material to be provided by the contractor." and design will be decided by Engineer In charge.	103	M
22	Fixing 300 mm dia Exhaust Fans CISE,Providing and fixing 300 mm dia exhaust fans with louvers or shutters, including making suitable cut out in the wall for fixing the fans.	14	NO
23	Providing all materials and fixing monolithic Gypsum board FALSE CEILING conforming to IS 2095, at all heights including providing and fixing of framework as spelled out in Saint Gobain or equivalent manufacturer catalogue. Bidder to provide adequate steel sections (Channels, I or T sections) and hanger supports to cater to the false ceiling loads. OWNER would check the design and adequacy and has the right to reject if found inadequate. Nothing extra shall be paid for making openings for AC grills, smoke detectors, electrical fixtures etc. The cutouts shall be provided with peremeter channel of adequate size of 0.5 mm thk. all around and shall be supported suitably. Verticle / inclined face shall be measured above 200 mm high only. For payment purpose false ceiling shall be measured in plan only.	120	SQM
24	MINERAL FIBRE grid FALSE CEILING of Saint Gobain or equivalent (600x600mm grid). Bidder to provide adequate steel sections (Channels, I or T sections) and hanger supports to cater to the false ceiling loads. Standard sections as spelled out in Saint Gobain or equivalent manufacturer catalogue to be provided. OWNER would check the design and adequacy and has the right to reject if found inadequate.	291	SQM

25	<p>Providing and fixing both sided gypsum Partition walls using Gyprock soundblock board of required thickness of saint Gobain or equivalent as per approved drawings including scaffolding/access, making cut-out of required sizes and supporting framework for door opening as specified in approved drawings and manufacturer specification using metal stud frame sections ,ceiling sections , connecting clip, drywall screws, anchor bolts, backing strips, includes filling and finishing with Jointing compound, Joint Paper tape and two coats of Drywall Top Coat as specified in specification , etc.all complete as per the the approved drawings and Manufacturer specifications and engineering drawings.</p>	175	SQM
26	<p>S&I of fully glazed fire rated door Supply and installation of tested fully glazed fire rated fixed door with 120 minutes of integrity and radiation control (EW 120)with symmetrical (Bi-Directional) fire protection. The frames shall be cold rolled profiles using DX52D+Z275-M-A-O steel sheets (As per EN standard EN 10327). The frames are cold rolled from 1.5 mm steel sheet to form a profile of 50 mm x 50 mm on all sides. The system shall be tested as per EN 1364-1 in an international accredited laboratory. The glass should be 14mm clear make Saint-Gobain, 120 min bi-direction fire rated for Integrity, Radiation control (EW 120) and made in India partially insulation (EI 20) Non Wired Toughened Interlayered glass with a light transmission of 86% and a sound reduction of 38 dB and manufactured in UL & TUV audited Facility and including UL-EU Certification and compliant to class 1(B)1 category of Impact Resistance as per EN 12600. The glass shall be tested for 5000 hours of UV resistance as per EN ISO 12543-4. The glass shall be EPD (Environmental Production Declaration) verified in accordance to EN 15804 and ISO 14025 in which its life cycle assessment is performed considering Cradle to Gate system boundaries. The glass must produce a recycled content declaration committing to a pre-consumer cullet of up to 11% and post-consumer cullet less than 1%. The glass shall provide bi-directional (Symmetrical) fire protection. The glass should be held in its place with the help of 1.5 mm cold rolled steel beading and SG pyrfix light/ Kerafix 2000 ceramic tape with cross section of 4 x 15 mm as per the test evidence. The maximum glazing size shall be as per the test certification. The Partitions shall offer C4 level of wind resistance when tested as per tested for class 4 level of Mechanical strength when tested as per EN13115. The shutter should be fixed to the frame using Weld-on hinges of VDS, Dorma, Geze or equivalent of dimensions 179mm X 20mm. The profiles shall have groves to incorporate Fire Resistance gasket. The glass should be held in its place with the help of steel beading and SG pyrofix light/ Kerafix 2000 ceramic tape with cross section of 4 x 15 mm as per the test evidence. Beading should be clipped on to Stainless Steel self-tapping screws fixed at a distance of 70 mm from the edges and 150 mm c/c henceforth. The glass panes are to be supported on non-combustible 6mm Calcium Silicate setting blocks.</p>	6	M2
27	<p>Aluminium framed glazed windows: Providing and fixing extruded Aluminium built up standard tubular sections/ appropriate Z and other sections of Jindal, Hindalco or equivalent make conforming to IS: 733 and IS: 1285, 50 microns thk. powder coated to required shade according to IS: 1868. (Minimum coating of grade AC 15), fixed with rawl plugs and screws or with fixing clips or with expansion hold fastners including filling the gaps between opening and aluminium frame with silicon sealant or poly-sulphide sealant as directed, necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ Neoprene felt, etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/ panelling, C P brass/ stainless steel screws, colour glass of st gobain or equivalent all complete as per architectural drawings and the directions of Engineer glass included. Vendor shall prepare and submit shop drawings for owner's approval</p> <p>i) Fixed window with openable pane</p>	12	Sqm

28	Providing and fixing solid core flush door with TW frame in Single / Double leaf 38 mm thk. Marine type of exterior grade as per detailed drawings, approved marine plywood facing on both sides without glazing and venetians, with core of block board all necessary T.W. lipping of door thickness, C.P., Brass and S.S. ball bearing Hinges minimum 4 nos per leaf, fixtures and fastenings, door handles, door locks and laminate finish to the satisfaction of Architect. Laminate shall be 1mm thick on both sides, in one piece without joints or broken edges of make Signature, Greenlam, Century or equivalent.	6	Sqm
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BOQ TABLE 3 - ROAD WORKS

Sr. No.	Description	Quantity	Unit
1	<p>Dismantling and disposal of structures including reinforcements and structural steel, if any, at all levels, listing the scrap material and returning the reinforcements and structural steel to Owner's store at Dharavi as directed by the Engineer-in-charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty (Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.) Brick/ Stone Masonry</p>	25	M3
2	<p>Dismantling and disposal of structures including reinforcements and structural steel, if any, at all levels, listing the scrap material and returning the reinforcements and structural steel to Owner's store at Dharavi as directed by the Engineer-in-charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty (Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.) Bituminous Pavement</p>	25	M3
3	<p>Dismantling and disposal of structures including reinforcements and structural steel, if any, at all levels, listing the scrap material and returning the reinforcements and structural steel to Owner's store at Dharavi as directed by the Engineer-in-charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty (Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.) Plain cement concrete</p>	25	M3

4	<p>Dismantling and disposal of structures including reinforcements and structural steel, if any, at all levels, listing the scrap material and returning the reinforcements and structural steel to Owner's store at Dharavi as directed by the Engineer-in-charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty (Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.) Reinforced cement concrete</p>	25	M3
5	<p>Dismantling and disposal of structures including reinforcements and structural steel, if any, at all levels, listing the scrap material and returning the reinforcements and structural steel to Owner's store at Dharavi as directed by the Engineer-in-charge with all leads and lifts, etc. complete in all aspects as described and as directed by the Engineer-in-Charge. The rate quoted shall be inclusive of factors like MCGM disposal, Royalty (Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.) Structural steel</p>	2	MT
6	<p>Clearing and Grubbing of the site and disposing of all materials such as vegetation, trees (of all girths), bushes, shrubs, undergrowth, stumps, roots, grass, weeds, top organic soil not exceeding 150 mm in thickness, rubbish etc, which in the opinion of the Engineer are unsuitable for incorporation in the works, from the area of road land containing road embankment, drains, cross-drainage structures and such other areas as may be specified on the drawings or by the Engineer/OWNER necessary excavation, backfilling of pits resulting from uprooting of trees and stumps to required compaction, handling, salvaging, and disposal of cleared materials Lead of 1.0 km is inclusive in rate for all lifts and leads etc, complete. (Refer clause 201 of MORTH).</p>	445	M2

7	Excavation in ordinary earth, soft & decomposed rock which include rock/boulders/slag/slate/laterite, sand/gravel/clay/murum, rubble of all kinds; including all safety provisions by providing shoring and strutting, removal of vegetation, shrubs, royalty, etc., removal and disposal of excavated material from the site, temporary stacking of selected earth and its multiple handling and spreading within the internal premises as directed by the Engineer-in-Charge, including dewatering, foundation bed preparation, backfilling and compaction, disposal of materials beyond plot boundary in MCGM approved area etc. complete in all aspects as described and as directed by the Engineer-in-Charge. (Contractor to take permission from Collector/MCGM/concern authorities for the dumping place in consultation with the Municipal and/or other Local Authorities & Debris Management Cell. Contractor should ensure that this disposal cause no nuisance to the residents of town. Disposal is at the risk and cost of the Contractor.)	330	M3
8	Providing and laying good quality murrum in embankment and or filling in layers not exceeding 25 cm in loose thickness and compacting each layer with a 10/12 tonne power roller to 95% of Standard Proctor Density including levelling, watering, etc. complete in conformity with a required grades, lines and cross sections, etc. complete as directed by Engineer-in Charge.	50	M3
9	Providing, laying, spreading & compacting specified graded stone aggregates to wet mix macadam specification including premixing the material at OMC in mechanical mixer (pug mill), carriage of mixed material, by tipper to site, laying in uniform layers of specified thickness in sub base / base course on a well prepared sub grade / sub base by mechanical pavers and compacting with power vibratory roller to achieve the desired density [including all materials, labour, machinery, lighting, guarding, barricading and maintenance of diversion etc. complete, in all respect as per MORTH (IV R) Clause 406.	135.00	M3
10	Providing and placing in position to correct profile R.C.C. wearing course 300mm of concrete grade M35 using 20mm down graded aggregates and limiting water cement ratio to 0.45 for rigid paving for approach roads etc including provision of side shuttering vibrating, curing, including providing contraction and construction joints. (to be paid separately) etc complete in all respects.	180	M3
11	Providing and laying in position plain cement nominal mix concrete with 40 mm down graded coarse aggregates including providing side shuttering as required, placing compacting curing etc complete including expenses towards dewatering etc complete all as per specification and as directed by ENGINEER. Concrète grade M15 in paving for base course below R.C.C roads (DLC layer of 100 mm thick), plinth protection etc.	60	M3
12	Providing and laying 125 micron thick PVL layer above DLC layer and below the R.C.C wearing layer including providing 300 mm lapping etc complete.	600	M2

13	Providing and laying Ready Mix Concrete, M10 Grade using 20 mm downgraded aggregates below ground for blinding layer under Hume pipe encasement, R.C. foundation and bedding, bottom of pits, sumps, chambers, trenches, anchor blocks, rubble masonry and brick walls etc. as per drawing or as directed by the Engineer-in-Charge including vibrating, compacting, curing, shuttering if required, etc. complete.	30	M3
14	Providing construction joint in concrete roads as per detail 'A'S of IRC 15, including providing groove in concrete, soft rope back up, 5 mm thick compressive debonding strip and 15mm x 12mm polysulphide sealant and all connected works.	175	M
15	Providing longitudinal joint in concrete roads as per detail 'B' of IRC 15, including providing groove in concrete, soft rope back up, 2mm thick debonding strip 8 mm x 15 mm polysulphide sealant and all connected works.	525	M
16	Providing 25 mm thick expansion joint in concrete roads as per detail 'C' of IRC 15, including providing 25 mm thick premoulded joint filler as per IS : 1838, 25mm x 25mm polysulphide sealant and all connected works.	45	M
17	Providing and fixing in position HYSD bar Reinforcement of primary make of grade Fe500D conforming to IS 1786 of various diameter for RCC members at all levels and locations, etc. as per detailed design, drawings and schedules including cutting, bending, hooking the bars, chairs, spacers, lapping, binding with 16 SWG soft annealed wires or tack welding and support as required and as directed by the Engineer-in- Charge, etc. complete. (Payments will be only for reinforcement bars, authorised lappings as per drawings and chairs as per approved bar bending schedule)	2	MT
18	Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge. 150 mm dia	10	M

19	<p>"Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge. 250 mm dia"</p>	25	M
20	<p>"Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge. 300 mm dia"</p>	15	M
21	<p>"Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge. 450 mm dia"</p>	25	M
22	<p>"Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge. 600 mm dia"</p>	25	M

23	<p>"Providing and laying RCC NP2 class Hume pipe with collar joint including jointing and filleting in 1:4 C.M, including plugging of both the ends with gunny bags, brick masonry in C.M 1:4 with plaster in C.M. 1:4 and curing, etc. complete as specified and as directed by Engineer-in-Charge. (All the pipes supplied shall confirm to relevant IS codes. The Contractor shall also arrange to get the pipes tested in accordance with tests specified in IS 3597:1985 at Contractor's cost and as directed. Testing shall be carried out in presence of Engineer-in-Charge. Laying of pipes shall be carried out as per IS 783 including all leads and lifts, etc. complete as directed by Engineer-in-Charge. 900 mm dia"</p>	10	M
24	<p>Providing rubble filling of trap stones of approved quality in foundations including sand packing and filling gravel in the voids, etc. complete as directed by Engineer-in-Charge.</p>	120	M3
25	<p>Providing and fixing concrete pre-cast kerb stone of size as shown in drawings for verges of specified size & shape in M20 grade concrete including excavation and backfilling in all type of strata and laid over a base cement mortar and including pointing, curing, preparation of surface, painting, etc. complete as directed and as per MORTH (IV R) Clause 408.</p>	300	M

BOQ TABLE 4- Miscellaneous Works

Sr. No.	Description	Quantity	Unit
VI	MISCELLANEOUS WORKS		
1	Providing, aligning and fixing in position rail section as per IRS (52kg/m) in concrete works/others area to correct lines and levels as per drawings including Anchor bolts, Base plates inserts etc complete.	4	MT
2	Providing and filling (40 - 65mm) Metal in Transformer and oil cooler foundation, soak pits with all materials, labour, tools, tackles and equipments with all carting, lifting loading, unloading etc. complete as directed and instructed by the Engineer-in-Charge.	315	M3
3	Providing, Supplying, placing, aligning, fixing and testing in position high density polyethylene pipes of approved manufacture conforming to Series II of IS:4984 with all types of fittings (readymade or fabricated) including jointing using butt welding etc complete with a working pressure of 6 kg/cm ² for the following diameters at locations as indicated on drawings: (Excavation and backfilling shall be paid under relevant item). OD 110 mm	5	M
4	"Providing, Supplying, placing, aligning, fixing and testing in position high density polyethylene pipes of approved manufacture conforming to Series II of IS:4984 with all types of fittings (readymade or fabricated) including jointing using butt welding etc complete with a working pressure of 6 kg/cm ² for the following diameters at locations as indicated on drawings: (Excavation and backfilling shall be paid under relevant item). OD 160 mm"	85	M
5	"Providing, Supplying, placing, aligning, fixing and testing in position high density polyethylene pipes of approved manufacture conforming to Series II of IS:4984 with all types of fittings (readymade or fabricated) including jointing using butt welding etc complete with a working pressure of 6 kg/cm ² for the following diameters at locations as indicated on drawings: (Excavation and backfilling shall be paid under relevant item). OD 200 mm"	5	M
6	"Providing, Supplying, placing, aligning, fixing and testing in position high density polyethylene pipes of approved manufacture conforming to Series II of IS:4984 with all types of fittings (readymade or fabricated) including jointing using butt welding etc complete with a working pressure of 6 kg/cm ² for the following diameters at locations as indicated on drawings: (Excavation and backfilling shall be paid under relevant item). OD 250 mm"	5	M
7	Providing, supplying and laying in position GI conduits medium grade in concrete slab, beams, foundations all as per drawings and specification or as directed by Engineer. a) 25 mm	2	M

8	Providing, supplying and laying in position GI conduits medium grade in concrete slab, beams, foundations all as per drawings and specification or as directed by Engineer. b) 32 mm	2	M
9	Providing, supplying and laying in position GI conduits medium grade in concrete slab, beams, foundations all as per drawings and specification or as directed by Engineer. c) 50 mm	2	M
10	Providing, supplying and laying in position GI conduits medium grade in concrete slab, beams, foundations all as per drawings and specification or as directed by Engineer. d) 63.5 mm	2	M
11	Providing, supplying and laying in position GI conduits medium grade in concrete slab, beams, foundations all as per drawings and specification or as directed by Engineer. e) 80 mm	2	M
12	Supplying and fixing anchor fasteners HST-R of HILTI make in RC beams, columns and slabs including scaffolding, drilling holes etc. Complete as per manufacturer's specification and as directed by the Engineer. 12 mm dia.	60	NO
13	Supplying and fixing anchor fasteners HST-R of HILTI make in RC beams, columns and slabs including scaffolding, drilling holes etc. Complete as per manufacturer's specification and as directed by the Engineer.16 mm dia.	60	NO
14	Supplying and fixing anchor fasteners HST-R of HILTI make in RC beams, columns and slabs including scaffolding, drilling holes etc. Complete as per manufacturer's specification and as directed by the Engineer.20 mm dia.	60	NO
15	Providing and laying CI 150 dia pipe from transformer oil pit to burnt oil pit.	28.0	M
16	Providing and laying CI 200 dia pipe from transformer oil pit to burnt oil pit.	28.0	M
17	Providing and laying CI 100 dia pipe IN Transformer wall.	11.0	M
18	Providing supplying & fixing of FRP manhole cover of size 900 mm*900 mm including necessary fitting & tool tackle, transportation etc as directed by engineer in-charge.	2	EA
19	Re barring/Providing & Fixing 20 mm dia rod 300 mm deep including drilling, grouting with HILTI make chemical RE500, cost of 20 mm 1.30 m dia rod	50	No
20	Providing & laying RCC NP3 class Hume pipe conforming to IS 458 in slope with RCC collar in cement sand joint in 1:3 proportion including cutting the pipes to required length, complete. 200 mm dia."	75	M

21	Cleaning of vegetation Clearing the site of all vegetation, trees, bushes, shrubs, undergrowth, etc., and disposal to dumps as instructed by the ENGINEER including all lifts and leads etc., complete.	3750	M2
22	Rock anchors 25mm Providing, Supplying, Detailing, fabricating rock anchor and placing in position including drilling, grouting etc. complete as per manufacturer's specification, as per approved drawing and as directed by the Engineer in-charge .	50	EA
23	P/A gunniting	3750	M2
24	PRVD&FIX,PIPE,PVC,100 M includig all reuired tool tackels , all inclusive.	125	M
25	200mm diameter core cutting	10	NO
26	P/L MS Pipe 75 mm dia	4	M
27	CISE,Providing Core Cutting holes in concrete required for services (if not provided in drawing earlier during casting) of thickness not exceeding 50 cm including grouting the same in cement concrete 1:1:2 after positioning of service lines, bolts, holes, etc. of 100mm diameter.	10	No
28	AQI sensor machine with Digital Display Supply Installtion & Commissioning of Sensor Based Air Quality Monitorign Systemwith Cloud Access & public display Strip 4ft(L)x3ft(H) (1220mmX915 mm)(P6 Muti Colur) LED display with RS485 and wifi data transfer integration. AQBot PM (PM1, Pm2.5, PM10, PM100), Ebvizom -Cloud -Overview Dash board -Device managment User Managemet as per KDMC/BMC norms for Pollution Control.	1	NO
29	Installation of Mist spray gun/Anti-smog gun including all required tools &tackles, piping, water pump throwing range of 90 to 100M	1	NO