KIIFB - CONSTRUCTION OF REGULATOR CUM BRIDGE ACROSS UMMENCHIRA RIVER AT CHEKKUPALAM IN PINARAYI PANCHAYATH, KANNUR DISTRICT

Detailed Estimate

(Dsor year: **2016**,Cost Index Applied for this estimate is **32.04**%)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
1 Appendix A- Construction of Ring Bund								
1	od236732/2019_2020 RING BUND-Putting up ring bund using driving Z type MS sheet piles of 12.00 m height (400x185x7.50/8.50 or equivalent - conforming to IS 2314-1986 on one side driven with minimum driving length of 6.00 m for ensuring sufficient anchorage and horizontally brazed with MS flats and angles where ever necessary and the other side with coconut piles 6.00- 9.00 m length driven 3.00 m as shown in figure tide with half split coconut piles as wailing piece 1.00 m C/C and filled in between with empty gunny / polyethene bags filled earth are placed bottom width 3.50 m and top width 2.00 m and 7.00 m height and including dismantling the bund driven out sheet pile after completion of the work etc complete as directed by the departmental officer at site.							
	Downstream Stage 1 - Long Bund	1	75.000				75.000	
						Total Quantity	75.000 RM	
						Total Deducted Quantity	0.000 RM	
						Net Total Quantity	75.000 RM	
						Say 75.000 RM @ Rs 35599.29 / RM	**Rs 2669946.75**	
2	od236735/2019_2020 RING BUND Type-I-Putting up ring bund as per approved shape 2.5m bottom width, 1m top width using empty gunny/polythene bags filled with earth placed in 2 rows at 0.6m apart and filled in between with puddle clay to form bund for an average height 2.00m including labour dismantling the bund after completion of the work etc. complete.							
	Upstream Bund	1	65.000				65.000	
	Downstream Bund	1	10.000				10.000	
	Downstream Bund	1	22.000				22.000	
						Total Quantity	97.000 RM	
						Total Deducted Quantity	0.000 RM	
						Net Total Quantity	97.000 RM	
						Say 97.000 RM @ Rs 1370.80 / RM	**Rs 132967.60**	
3	od236742/2019_2020 od20604/2018_2019/IA :Forming Island of size 15x10x2.50 M. for working space for boring and constructing piles, pile cap, pier and pier cap maintaing the island till the completion of work by protecting alround by driving down full coconut piles 4.00 M long at 1M c/c to a depth of 1.50M below bed level and bracing with full bamboo at 60 cm c/c and fixing double ottamats to the bamboo bracers fixed at inside							

	portion with G.I wire and coir and tying 1/3rd split coconut rafter with coconut piles as outside bracers two raws at 1.50 M and 2.50 M from bed level and supporting the unit with split coconut posts at the two side with contractors own earth with leads and lifts including all conveyance charges, hire charges and labour charges etc. complete including cutting and removing the island with all dismantling charges etc. complete as per drawing and the directions of deptl. officers at site.							
	Island 15x10x2.5	3					3.000	
						Total Quantity	3.000 no	
						Total Deducted Quantity	0.000 no	
						Net Total Quantity	3.000 no	
						Say 3.000 no @ Rs 283889.37 / no	**Rs 851668.11**	
4	od236746/2019_2020 Bailing out water Using 5HP Pump- Bailing out water with 5HP engine and pump set including conveyance to site and erection,cost of fuel, lubrication oil and other stores, pay of staff etc complete							
		1	10000.000				10000.000	
						Total Quantity	10000.000 hour	
						Total Deducted Quantity	0.000 hour	
						Net Total Quantity	10000.000 hour	
						Say 10000.000 hour @ Rs 234.37 / hour	**Rs 2343700.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	2 APPENDIX-B-FOUNDATION & APRON							
1	od236733/2019_2020 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil							
	Cutting left bank abutment cap	1	14.500	4.350	0.9/2		28.384	
	Do-Right bank	1	14.500	16.800	3.84/2		467.713	
	Left bank of D/s apron	1	8.960	4.350	0.9/2		17.540	
	Right bank of D/S apron	1	8.860	16.800	3.84/2		285.789	
	Left bank of U/s apron	1	7.130	4.350	0.9/2		13.957	
	Right bank of U/S apron	1	7.130	16.800	3.84/2		229.986	
	Cut off wall U/S & D/S	2	64.000	0.600	3.000		230.400	
	Side wall upstream	2	30.000	4.700	1.500		423.000	

	Do-downstream	2	10.000	4.700	1.500		141.000	
	Approach road side wall left & right banks	2*2	50.000	4.700	1.500		1410.000	
						Total Quantity	3247.769 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3247.769 cum	
						Say 3247.769 cum @ Rs 188.99 / cum	**Rs 613795.86**	
2	od236736/2019_2020 EARTH WORK FILLING- Supplying contractors own earth including cost of conveyance and royalty and filling (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
	Below apron	1	30.520	32.300	(2.34+1.33)/2		1808.936	
						Total Quantity	1808.936 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1808.936 cum	
						Say 1808.936 cum @ Rs 444.35 / cum	**Rs 803800.71**	
3	od236739/2019_2020 Construction of granular sub- base by Providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, Carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in- Charge. With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBRValue-25							
	Below apron	1	48.400	15.800	0.300		229.416	
	Pile cap for pier	-3	11.300	3.800	0.300		-38.646	
	Pile cap for abutment	-2	14.500	1.800	0.300		-15.660	
						Total Quantity	175.110 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	175.110 cum	
						Say 175.110 cum @ Rs 3110.34 / cum	**Rs 544651.64**	
4	od236743/2019_2020 1000 mm dia piles							
	Piles for felt bank abutment	10	9.600				96.000	
	Do right bank	10	10.860				108.600	

	Piles first from left	6	10.980				65.880	
	Do-second from left	6	13.130				78.780	
	Do-third from left	6	10.860				65.160	
	Retaining wall for road left bank	2*12	10.860				260.640	
	Do-right bank	2*12	9.600				230.400	
	Do-upstream right for river	2*10	9.600				192.000	
	Do-left	2*10	10.860				217.200	
	Do-downstream side right for river	2*4	9.600				76.800	
	Do-left	2*4	10.860				86.880	
						Total Quantity	1478.340 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1478.340 cum	
						Say 1478.340 cum @ Rs 12400.01 / cum	**Rs 18331430.78**	
5	od236734/2019_2020 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately. All work upto plinth level							
	Abutment cap & Pier cap							
	Abutment cap	2	14.500	4.700	1.500		204.451	
	Pier cap	3	11.300	3.800	1.500		193.230	
						Total Quantity	397.681 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	397.681 cum	
						Say 397.681 cum @ Rs 10074.35 / cum	**Rs 4006377.58**	
6	od236749/2019_2020 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).							

	1000 mm Pilles	3.14/4	1478.340	1.000	1.000		1160.497	
						Total Quantity	1160.497 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1160.497 cum	
						Say 1160.497 cum @ Rs 104.26 / cum	**Rs 120993.42**	
7	od236752/2019_2020 Providing casing pipe of made out of 6mm thick m.s. plate used for cast in situ pile and erecting at site in time and level and driving down in to required depth including cost and conveyance of all materials ,all fabrication charges with all leads and lifts etc. complete according to the necessity at site.							
	For 1000 mm piles							
	Piles for left bank abutment	10	2.000				20.000	
	do right bank	10	2.000				20.000	
	Piles first pillar from left	6	2.000				12.000	
	do second from left	6	2.000				12.000	
	do third from left	6	2.000				12.000	
	Retaining wall for road left bank	2*12	2.000				48.000	
	do right bank	2*12	2.000				48.000	
	do Upstream side right for river	2*10	2.000				40.000	
	do left	2*10	2.000				40.000	
	do Upstream side right for river	2*4	2.000				16.000	
	do left	2*4	2.000				16.000	
						Total Quantity	284.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	284.000 metre	
						Say 284.000 metre @ Rs 16183.52 / metre	**Rs 4596119.68**	
8	od236753/2019_2020 od21358/2018_2019/IA :Providing steel reinforcement for circular piles including bending the rods in circular shape etc. as required for the piles including cost and conveyance of all materials and labour charges for errection of steel roads vertically and placing the reinforcement in position in the bore holes in stage by stage using necessary equipment and providing necessary circular binders welded at the required intervals around the longitudinal reinforcement set circularly and as per direction of deptl. officer at site. Details for 1 meter 							

	1000 mm dia piles	1*3.14	1478.340	0.500	0.500	1.3	1508.646	
						Total Quantity	1508.646 quintal	
						Total Deducted Quantity	0.000 quintal	
						Net Total Quantity	1508.646 quintal	
						Say 1508.646 quintal @ Rs 8609.52 / quintal	**Rs 12988717.91**	
9	od236756/2019_2020 :Cutting and removing excess length of R.C.C. piles 1000 mm . dia including chipping the concrete sawing the reinforcement conveying the outlets of the piles and stacking the same within a distance of 150 m as per S.I.711. etc complete and as per the directions of departmental officers at site. 							
	For 1000 mm piles							
	Piles for left bank abutment	10					10.000	
	do right bank	10					10.000	
	Piles first pillar from left	6					6.000	
	do second from left	6					6.000	
	do third from left	6					6.000	
	Retaining wall for road left bank	2*12					24.000	
	do right bank	2*12					24.000	
	do Upstream side right for river	2*10					20.000	
	do left	2*10					20.000	
	do Upstream side right for river	2*4					8.000	
	do left	2*4					8.000	
						Total Quantity	142.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	142.000 each	
						Say 142.000 each @ Rs 4087.86 / each	**Rs 580476.12**	
10	od236757/2019_2020 Conducting test loading on bored cast in situ piles1000mm dia by arranging necessaryknbolted go jack dial gauge, R.S joists, sand bag etc. including hire and labour of all machineries etc. asdirected by the departmental officers at site. Considering an average of 255T for piles below lock piers are to beloaded as per the directions of dept officers at site. 							
		6					6.000	

						Total Quantity	6.000 per test	
						Total Deducted Quantity	0.000 per test	
						Net Total Quantity	6.000 per test	
						Say 6.000 per test @ Rs 393111.73 / per test	**Rs 2358670.38**	
11	od236758/2019_2020 Integrity testing of pile using Low Strain / Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer-in-charge. Note: PRICE EST NO:2018/4048/IA printed on 06-01-2020 15:59:46 page 17 Irrigation P R I C E The inclusion of the above item in the schedule of work shall be judiciously decided by the technical sanctioning authority, keeping in view the quality control, type of soil strata & importance of the project. 							
	For piles under abutment retaining wall and pier	20					20.000	
						Total Quantity	20.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	20.000 each	
						Say 20.000 each @ Rs 1126.84 / each	**Rs 22536.80**	
12	od236760/2019_2020 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	Deduct 1000 mm pile below abutment	-142	0.500	0.500	0.100	3.14	-11.147	
	PCC Below abutments	2	14.500	4.700	0.100		13.631	
	Do-Below Pier	3	11.300	3.800	0.100		12.882	
	Do-below retaining wall ,river U/S	2	30.000	4.700	0.100		28.201	
	Do D/s	2	10.000	4.700	0.100		9.400	
	Road retaining wall	2*2	40.000	4.700	0.100		75.200	
						Total Quantity	128.167 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	128.167 cum	
						Say 128.167 cum @ Rs 7452.41 / cum	**Rs 955153.03**	
13	od236761/2019_2020 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: 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Solid apron, weir foundation & weir							
	Solid apron	1	17.000	46.000	1.000		782.000	
	Additional portion	1	4.000	46.000	0.250		46.000	
	Weir portion	1	(1.5+3)/2	46.000	0.500		51.750	
	Below weir portion	1	(4.5+4.7)/2	46.000	0.400		84.640	
	Cut off wall U/S	1	0.600	60.000	2.900		104.400	
	Cut off wall D/S	1	0.600	60.000	3.000		108.000	
	Deduction (pier portion)							
	Pile cap for pier	3	11.300	3.800	1.300		-167.465	
	Do-for abutment	2	14.500	0.800	1.000		-23.200	
						Total Quantity	1176.790 cum	
						Total Deducted Quantity	-190.665 cum	
						Net Total Quantity	986.125 cum	
						Say 986.125 cum @ Rs 8662.32 / cum	**Rs 8542130.31**	
14	od236745/2019_2020 Centering and shuttering including strutting, propping etc. and removal of form work for: Foundations, footings, bases for columns							
	Area of form work Pile cap for abutment & Pier							
	Abutment cap	2*2	14.500		1.500		87.000	
	do ends	2*2		4.700	1.500		28.201	
	Pier cap	3*2	11.300		1.500		101.701	
	do ends	3*2		3.800	1.500		34.200	
	Area of form work for Apron cutoff wall, Pile caps for retaining walls							
	Cutoff wall u/s	2	60.000		2.900		348.000	
	Cutoff wall d/s	2	60.000		3.000		360.000	
	apron u/s	1	46.000		1.100		50.600	
	do d/s	1	46.000		1.000		46.000	
	Pile cap retaining wall u/s	2*2	30.000		1.000		120.000	
	do d/s	2*2	10.000		1.000		40.000	
	do ends	2*2*2		4.500	1.000		36.000	

	road retaining wall right bank	2*2	40.000		1.000		160.000	
	road retaining wall left bank	2*2	40.000		1.000		160.000	
	do ends	2*2*2		4.500	1.000		36.000	
						Total Quantity	1607.702 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1607.702 sqm	
						Say 1607.702 sqm @ Rs 291.05 / sqm	**Rs 467921.67**	
15	od236762/2019_2020 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work upto plinth level							
	Pile caps for retaining walls							
	Pile cap retaining wall u/s	2	30.000	4.500	1.000		270.000	
	do d/s	2	10.000	4.500	1.000		90.000	
	pile cap for road retaining wall left bank	2	40.000	4.500	1.000		360.000	
	do right bank	2	40.000	4.500	1.000		360.000	
						Total Quantity	1080.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1080.000 cum	
						Say 1080.000 cum @ Rs 9673.48 / cum	**Rs 10447358.40**	
16	od236747/2019_2020 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	As per item no -5	1	397.680			160.0	63628.800	
	As per item no -13	1	986.124			20.0	19722.480	
	As per item no -15	1	1080.000			160.0	172800.000	
						Total Quantity	256151.280 kg	
						Total Deducted Quantity	0.000 kg	

						Net Total Quantity	256151.280 kg	
						Say 256151.280 kg @ Rs 84.93 / kg	**Rs 21754928.21**	
17	od236750/2019_2020 :Providing anticorrosive treatment for reinforcement used in the RCC work including removing and cleaning the surface of reinforcement by sand blasting, applying one coat inhibitor solutioend one coat of inhibitor sealing solution mixing with Portland cement in ration if 600 CC of inhibiter to1.00kg of cement etc. complete including cost and conveyance of all materials, machinaries and labourcharges etc. complete.Sub Data for 20.00 Qtla) Sand blasting for cleaning the surfaceGrease 							
	As per item no -5	1	397.680			1.6	636.288	
	As per item no -13	1	986.124			0.2	197.225	
	As per item no -15	1	1080.000			1.6	1728.000	
						Total Quantity	2561.513 quintal	
						Total Deducted Quantity	0.000 quintal	
						Net Total Quantity	2561.513 quintal	
						Say 2561.513 quintal @ Rs 1128.18 / quintal	**Rs 2889847.74**	
18	od236764/2019_2020 Providing & making Gabion structure with Mechanically Woven Double TwistedHexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012,MORTH Clause2500, of required size, Mesh Type 10x12(D=100 mm with tolerance of 2%), Zinic+10%Al alloy+PVC coated, Mesh wire diameter 2.7/3.7mm (ID/OD), mechanically edged/selvedged with partitions at every 1m interval and shall have minimum 10 numbersof openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter2.2/3.2mm(ID/OD), supplied @3% by weight of Gabion boxes, filled with boulderswith least dimension of 200 mm, as per drawing, all complete as per directions ofEngineer-in-charge							
	DRY APRON							
	Apron d/s	1	5.000	46.000	1.000		230.000	
	do u/s	1	8.000	46.000	1.000		368.000	
						Total Quantity	598.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	598.000 cum	
						Say 598.000 cum @ Rs 4711.74 / cum	**Rs 2817620.52**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
3 APPENDIX C - ABUTMENT, PIERS AND ROAD SLAB								

1	od236734/2019_2020 Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in -charge. Note:- Cement content considered in this item is @330 kg/cum. Excess /less cement used as per design mix is payable/recoverable separately. All work upto plinth level							
	deduct groves	-8	0.600	0.600	7.056		-20.321	
	Pier first level	3	2.000	2.000	3.645		43.740	
	Do-circular portion	3*2*1/2*3.14	1.000	1.000	3.645		34.336	
	Do-second level	3	2.000	2.000	3.911		46.932	
	beam	3	8.500	1.300	1.200		39.780	
	column	3*3.14	0.650	0.650	3.350		13.333	
	abutment	2	14.500	1.200	4.585		159.558	
	Retaining wall u/s right	2	30.000	(0.9+0.4)/2	3.645		142.155	
	do d/s	2	10.000	(0.9+0.4)/2	3.645		47.385	
	Road retaining wall left bank	2	40.000	(0.9+0.4)/2	(5.986+3.986)/2		259.272	
	do right bank	2	40.000	(0.9+0.4)/2	(5.986+3.986)/2		259.272	
	Dirtwall base	2	14.500	1.200	0.700		24.360	
	do vertical	2	14.500	0.600	1.300		22.620	
	duck beams	3	47.000	0.600	1.000		84.600	
	duck slab	1	47.000	11.050	0.300		155.805	
	operating slab	1	47.000	2.500	0.200		23.500	
	hand rail post	36	0.200	0.150	0.800		0.864	
	hand rail	2*40	1.000	0.150	0.200		2.400	
						Total Quantity	1339.591 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	1339.591 cum	
						Say 1339.591 cum @ Rs 10074.35 / cum	**Rs 13495508.59**	

2	od236737/2019_2020 providing expansion joint between main slabs and dirt wall with Aluminium sheet 11.05m long and 0.60 meter wide (weight of sheet 11.05 x 0.60 x 3.40kg/m2) = 22.542kg including all costs and conveyance of all materials and labor charges cutting the same in position and fill the gap with mixture of bitumen saw dust and sand etc. complete as per standard specification and as per the direction of departmental at site							
	expansion joint area	8	11.050		0.600		53.040	
						Total Quantity	53.040 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	53.040 sqm	
						Say 53.040 sqm @ Rs 782.84 / sqm	**Rs 41521.83**	
3	od236740/2019_2020 Centering and shuttering including strutting, etc. and removal of form for: Columns, Pillars, Piers, Abutments, Posts and Struts							
	pier first level	3*2	2.000		3.645		43.740	
	Do-Circular portion	3*2*3.14	1.000		3.645		68.672	
	Do-second level	3*2	2.000		3.911		46.932	
	Do-edge	3*2		2.000	3.911		46.932	
	column	3*3.14	1.300		3.350		41.025	
	Abutment	2*2	14.500		4.585		265.930	
	Do-edge	2*2	14.500	1.200			69.600	
	Retaining wall U/S & D/S	2*2	40.000		(3.645+3.68)/2		586.000	
	Do -edges	2*2*2	(0.9+0.4)/2		3.645		18.954	
	road retaining left and right bank	2*2*2	40.000	(0.9+0.45)/2	(5.986+3.91)/2		1068.768	
	Do -edges	2*2*2	(0.9+0.45)/2		(5.986+3.91)/2		26.720	
	Dirtwall base	2*2	14.500		0.700		40.600	
	Do -edges	2*2		1.200	0.700		3.360	
	Do vertical	2*2	14.500		1.300		75.400	
	Do -edges	2*2		0.600	1.300		3.120	
	Do- side	3*2	47.000		1.000		282.000	
	Do	8		11.050	0.300		26.520	
	Do	8		2.500	0.200		4.000	

	Hand rail	36	0.700		0.800		20.160	
	Do top	36	0.200	0.150			1.080	
	Hand rail	2*2*40	1.000		0.350		56.000	
						Total Quantity	2795.513 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	2795.513 sqm	
						Say 2795.513 sqm @ Rs 702.05 / sqm	**Rs 1962589.90**	
4	od236744/2019_2020 Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform							
	pier beam bottom	3	7.200	1.300			28.081	
	do- side	3*2	8.500		1.200		61.200	
	duck beam bottom	3	47.000	0.600			84.600	
	do- sides	3*2	47.000		1.000		282.000	
	duck slab	1	47.000	11.050			519.350	
	edges	2	47.000		0.300		28.200	
	do	8		11.050	0.300		26.520	
	operating slab	1	47.000	2.500			117.500	
	do edge	2	47.000		0.200		18.800	
	do	8		2.500	0.200		4.000	
						Total Quantity	1170.251 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1170.251 sqm	
						Say 1170.251 sqm @ Rs 685.39 / sqm	**Rs 802078.33**	
5	od236747/2019_2020 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	As per item No. 1	1	1339.521			130.0	174137.730	
						Total Quantity	174137.730 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	174137.730 kg	
						Say 174137.730 kg @ Rs 84.93 / kg	**Rs 14789517.41**	
6	od236750/2019_2020 :Providing anticorrosive treatment for reinforcement used in the RCC work including removing and							

	cleaning the surface of reinforcement by sand blasting, applying one coat inhibitor solutioend one coat of inhibitor sealing solution mixing with Portland cement in ration if 600 CC of inhibiter to1.00kg of cement etc. complete including cost and conveyance of all materials, machinaries and labourcharges etc. complete.Sub Data for 20.00 Qtla) Sand blasting for cleaning the surfaceGrease 							
		1	1741.377				1741.377	
						Total Quantity	1741.377 quintal	
						Total Deducted Quantity	0.000 quintal	
						Net Total Quantity	1741.377 quintal	
						Say 1741.377 quintal @ Rs 1128.18 / quintal	**Rs 1964586.70**	
7	od236751/2019_2020 Supplying and fixing elastomeric rubber bearing of size 710x200x48mm between abutment cap and deck beam including all material, conveyance and labour charges etc complete as per the directions of dept officers at site.							
		2*4*3					24.000	
						Total Quantity	24.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	24.000 each	
						Say 24.000 each @ Rs 11498.85 / each	**Rs 275972.40**	
8	od236736/2019_2020 EARTH WORK FILLING- Supplying contractors own earth including cost of conveyance and royalty and filling (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
	deduct reusable excavated quantity assuming 30%reusable qty as per item No. 2.1	-1273			0.300		-381.900	
	back filling road retaining wall left & right banks	2	40.000	11.050	(5.986+3.986)/2		4407.624	
	river side wall U/S & D/S	2	40.000	(15+11+8)/3	3.645		3304.800	
						Total Quantity	7330.524 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	7330.524 cum	
						Say 7330.524 cum @ Rs 444.35 / cum	**Rs 3257318.34**	
9	od236755/2019_2020 Supplying and providing UPVC pipe of 75mm Diameter for weep holes in abutment with an interval of							

	1m horizontally and 0.50 m vertically in two layers							
		11*3	1.200				39.600	
		11*3	1.200				39.600	
		16*4*3	0.650				124.801	
						Total Quantity	204.001 per metre	
						Total Deducted Quantity	0.000 per metre	
						Net Total Quantity	204.001 per metre	
						Say 204.001 per metre @ Rs 145.75 / per metre	**Rs 29733.15**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	4 APPENDIX D- OFFICE & GENERATOR ROOM							
1	20.2.1 Boring, providing and installing bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring, with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap).300 mm dia piles							
	Pile for 6 No. of column	6*4	12.500				300.000	
						Total Quantity	300.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	300.000 metre	
						Say 300.000 metre @ Rs 1975.98 / metre	**Rs 592794.00**	
2	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)							
	below pile cap	6	1.950	1.950	0.100		2.282	
	below plinth beam	2	10.230	0.310	0.100		0.635	
	Do	4	3.400	0.310	0.100		0.422	
	beam for toilet	1	1.200	0.310	0.100		0.038	
						Total Quantity	3.377 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	3.377 cum	
						Say 3.377 cum @ Rs 6357.13 / cum	**Rs 21468.03**	
3	5.2.2							

	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)							
	pile cap	6	1.750	1.750	1.000		18.375	
	plinth beam	2	10.030	0.210	0.500		2.107	
	do	4	3.600	0.210	0.500		1.512	
	do	1	1.200	0.210	0.500		0.126	
	columns	6	0.500	0.210	4.200		2.646	
	long beam	2	10.030	0.210	0.500		2.107	
	cross beam	4	3.600	0.210	0.500		1.512	
	lintels long wall	2	10.030	0.210	0.200		0.843	
	do cross wall	2	3.600	0.210	0.200		0.303	
	sunshade	2	11.230	0.600	(0.1+0.075)/2		1.180	
	do	2	3.600	0.600	(0.1+0.075)/2		0.378	
	root slab	1	10.430	4.500	0.120		5.633	
						Total Quantity	36.722 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	36.722 cum	
						Say 36.722 cum @ Rs 9435.31 / cum	**Rs 346483.45**	
4	4.3.1 Centering and shuttering including strutting, propping etc. and removal of form work for:Foundations, footings, bases for columns							
	pile cap side	6	7.000		1.000		42.000	
	plinth beam	2	10.030		1.210		24.273	
	do	4	3.600		1.210		17.424	
	toilet beam	1	1.200		1.210		1.452	
						Total Quantity	85.149 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	85.149 sqm	
						Say 85.149 sqm @ Rs 256.09 / sqm	**Rs 21805.81**	
5	5.9.5 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers							

	columns	6	1.420		4.200		35.784	
	long beam	2	10.030	1.210			24.273	
	cross beam	4	3.600	1.210			17.424	
	lintel long wall	2	10.030	0.810			16.249	
	do cross wall	2	3.600	0.810			5.833	
	roof slab	1	9.190	3.600			33.084	
	d o p r o j e c t i o n & a m p ; e d g e	1	30.240		0.320		9.677	
	sunshade	2	11.230	0.675			15.161	
	do	2	3.600	0.675			4.860	
						Total Quantity	162.345 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	162.345 sqm	
						Say 162.345 sqm @ Rs 452.77 / sqm	**Rs 73504.95**	
6	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	qnty as per item No.1 assuming 120 kg/m3	84.78				120.0	10173.600	
	qnty as per item No.3 assuming 120 kg/m3	36.722				120.0	4406.640	
						Total Quantity	14580.240 kilogram	
						Total Deducted Quantity	0.000 kilogram	
						Net Total Quantity	14580.240 kilogram	
						Say 14580.240 kilogram @ Rs 74.73 / kilogram	**Rs 1089581.34**	
7	60.6.1 Laterite Masonry - Laterite masonry using neatly dressed stones of size 44cmx24cmx14cm in CM 1:6 including all cost of conveyance and labour charges etc. complete.							
	column	-6	0.500	0.210	3.000		-1.890	
	beam	-2	9.190	0.210	0.500		-1.929	
	do	-2	3.600	0.210	0.500		-0.756	
	door d1	-1	1.000	0.210	2.000		-0.420	
	d2	-1	0.800	0.210	2.000		-0.336	
	w3	-5	1.500	0.210	1.350		-2.126	
	v	-1	0.900	0.210	0.450		-0.085	

	roller shutter	-1	3.000	0.210	2.400		-1.512	
	long wall	2	10.030	0.210	3.000		12.638	
	short wall	3	3.600	0.210	3.000		6.804	
	toilet wall	1	1.710	0.210	3.000		1.078	
		1	1.200	0.210	3.000		0.756	
						Total Quantity	12.222 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	12.222 cum	
						Say 12.222 cum @ Rs 5529.73 / cum	**Rs 67584.36**	
8	od236754/2019_2020 Providing M.S. rods to windows and ventilators 1 q M.S. RODS 							
		5*10	1.300			0.01	0.650	
		3	0.750			0.01	0.023	
						Total Quantity	0.673 quintal	
						Total Deducted Quantity	0.000 quintal	
						Net Total Quantity	0.673 quintal	
						Say 0.673 quintal @ Rs 10974.60 / quintal	**Rs 7385.91**	
9	9.1.1 Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).Second class teak wood							
	d1 vertical member	2	2.000	0.100	0.070		0.029	
		2	1.100	0.100	0.070		0.016	
		2	2.000	0.100	0.070		0.029	
		2	0.900	0.100	0.070		0.013	
		2	0.900	0.100	0.070		0.013	
	w	5*2	1.500	0.100	0.070		0.106	
		5*2	1.450	0.100	0.070		0.102	
		2	0.450	0.100	0.070		0.007	
		2	1.000	0.100	0.070		0.015	
						Total Quantity	0.330 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	0.330 cum	
						Say 0.330 cum @ Rs 122457.92 / cum	**Rs 40411.11**	

10	9.53 Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		4					4.000	
		4					4.000	
		5*4					20.000	
		1*2					2.000	
						Total Quantity	30.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	30.000 each	
						Say 30.000 each @ Rs 156.60 / each	**Rs 4698.00**	
11	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
		1	3.600	3.600			12.960	
		1	1.200	1.500			1.800	
		1	4.390	3.600			15.804	
		1	1.410	1.890			2.665	
		2	11.520	0.600			13.824	
		2	3.600	0.600			4.320	
		1	32.640		0.500		16.320	
						Total Quantity	67.693 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	67.693 sqm	
						Say 67.693 sqm @ Rs 228.36 / sqm	**Rs 15458.37**	
12	13.1.2 12 mm cement plaster of mix:1:6 (1 cement : 6 fine sand).							
		-1	1.000		2.000		-2.000	
		-1	0.800		2.000		-1.600	
		-5	1.500		1.350		-10.125	
		-1	0.900		0.450		-0.405	
		-2	3.000		2.400		-14.399	
		2	10.030		3.550		71.213	
		2	4.000		3.550		28.400	

		4	3.600		3.000		43.200	
		1	1.410		3.000		4.230	
		1	2.700		3.000		8.101	
		1	4.390		3.000		13.170	
		2	3.600		3.000		21.600	
		1	5.800		3.000		17.400	
	Total Quantity						178.785 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						178.785 sqm	
	Say 178.785 sqm @ Rs 211.73 / sqm						**Rs 37854.15**	
13	od236759/2019_2020 Supplying and fixing seasoned wood fully panelled shutter to suit the door frames already fixed with shutter frames of size 35x200mm and 16mm thick planks including all materials and labour charges etc. Complete as per direction of the departmental officers at site including fixing charges of fittings.							
		1	0.880	1.980		10.0	17.424	
		1	0.630	1.980		10.0	12.474	
	Total Quantity						29.898 10 cud m	
	Total Deducted Quantity						0.000 10 cud m	
	Net Total Quantity						29.898 10 cud m	
	Say 29.898 10 cud m @ Rs 1185.40 / 10 cud m						**Rs 35441.09**	
14	9.9.2.1 Providing and fixing glazed shutters for door, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S. Pressed butt hinges bright finished of required size with necessary screws.Kiln seasoned and chemically treated hollock wood35 mm thick							
		5*3	0.415	1.230			7.657	
		1*2	0.720	0.330			0.476	
	Total Quantity						8.133 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						8.133 sqm	
	Say 8.133 sqm @ Rs 2908.31 / sqm						**Rs 23653.29**	
15	10.6.2 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.80x1.20 mm M.S. laths with 1.20 mm thick top cover							
		1	3.000		2.400		7.200	
	Total Quantity						7.200 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						7.200 sqm	
	Say 7.200 sqm @ Rs 2431.38 / sqm						**Rs 17505.94**	
16	9.55.2 Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc, complete:100x58x1.90mm.							
		1*4					4.000	
	Total Quantity						4.000 no	
	Total Deducted Quantity						0.000 no	
	Net Total Quantity						4.000 no	
	Say 4.000 no @ Rs 36.18 / no						**Rs 144.72**	
17	9.55.3 Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc, complete:75x47x1.70 mm							
		4					4.000	
		5*3*3					45.000	
		2*2					4.000	
	Total Quantity						53.000 no	
	Total Deducted Quantity						0.000 no	
	Net Total Quantity						53.000 no	
	Say 53.000 no @ Rs 28.98 / no						**Rs 1535.94**	
18	9.63.2 Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete:200x10 mm							
		2					2.000	
	Total Quantity						2.000 no	
	Total Deducted Quantity						0.000 no	
	Net Total Quantity						2.000 no	
	Say 2.000 no @ Rs 67.41 / no						**Rs 134.82**	
19	9.63.4 Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws							

	etc. complete:100x10 mm							
		1	1.000				1.000	
						Total Quantity	1.000 no	
						Total Deducted Quantity	0.000 no	
						Net Total Quantity	1.000 no	
						Say 1.000 no @ Rs 41.53 / no	**Rs 41.53**	
20	od236763/2019_2020 :brass hooks and eyes 150mm 							
		5*3					15.000	
						Total Quantity	15.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	15.000 each	
						Say 15.000 each @ Rs 69.01 / each	**Rs 1035.15**	
21	od236765/2019_2020 :Brass hard drawn hooks and eyes 100 mm 							
		2*15	1.000				30.000	
		2*1	1.000				2.000	
						Total Quantity	32.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	32.000 each	
						Say 32.000 each @ Rs 61.35 / each	**Rs 1963.20**	
22	od236766/2019_2020 pad lock 65mm size best quality 							
	d	1					1.000	
	d2	1					1.000	
						Total Quantity	2.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	2.000 each	
						Say 2.000 each @ Rs 247.11 / each	**Rs 494.22**	
23	od236767/2019_2020 DOOR handle 75 mm 							
		3					3.000	
						Total Quantity	3.000 each	
						Total Deducted Quantity	0.000 each	

						Net Total Quantity	3.000 each	
						Say 3.000 each @ Rs 42.98 / each	**Rs 128.94**	
24	od236768/2019_2020 Supplying 25 mm size iron screws for hinges, towers bolts etc complete 							
		250					250.000	
						Total Quantity	250.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	250.000 each	
						Say 250.000 each @ Rs 4.68 / each	**Rs 1170.00**	
25	13.50.1 Applying priming coat:With ready mixed pink or Grey primer of approved and manufacture on wood work (hard and soft wood)							
	d1	1*2.39	1.000	2.000			4.780	
	d2	1*2.39	0.800	2.000			3.825	
	w3	5*1.81	1.500	1.350			18.327	
	v	1*1.81	0.900	0.450			0.734	
						Total Quantity	27.666 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	27.666 sqm	
						Say 27.666 sqm @ Rs 46.15 / sqm	**Rs 1276.79**	
26	13.50.3 Applying priming coat:With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron /steel works							
	w3	5*10	1.260	3.14*.012			2.374	
	v	1*3	0.650	3.14*.012			0.074	
						Total Quantity	2.448 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	2.448 sqm	
						Say 2.448 sqm @ Rs 38.42 / sqm	**Rs 94.05**	
27	13.61.1 Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:Two or more coats on new work							
	d1	1*2.39	1.000	2.000			4.780	
	d2	1*2.39	0.800	2.000			3.825	
	w3	5*1.81	1.500	1.350			18.327	

	v	1*1.81	0.900	0.450			0.734	
						Total Quantity	27.666 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	27.666 sqm	
						Say 27.666 sqm @ Rs 103.52 / sqm	**Rs 2863.98**	
28	13.47.1 Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)							
		2	10.030		3.550		71.213	
		2	4.020		3.550		28.542	
		4	3.600		3.000		43.200	
		1	3.120		3.000		9.360	
		1	2.700		3.000		8.101	
		1	5.800		3.000		17.400	
		1	4.390		3.000		13.170	
		1	3.600		3.000		10.800	
		1	1.890		3.000		5.670	
		-1	1.000		2.000		-2.000	
		-1	0.800		2.000		-1.600	
		-5	1.500		1.350		-10.125	
		-1	0.900		0.450		-0.405	
		-2	3.000		2.400		-14.399	
		1	3.600	3.600			12.960	
		1	1.200	1.500			1.800	
		1	4.390	3.600			15.804	
		1	1.410	1.890			2.665	
		2	11.520	0.600			13.824	
		2	3.600	0.600			4.320	
		1	32.640	0.500			16.320	
						Total Quantity	246.620 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	246.620 sqm	
						Say 246.620 sqm @ Rs 127.81 / sqm	**Rs 31520.50**	

29	13.62.1 Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture .							
		1	3.050	2.400			7.320	
		5*10	1.260	3.14*.012			2.374	
		1*3	0.650	3.14*.012			0.074	
						Total Quantity	9.768 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	9.768 sqm	
						Say 9.768 sqm @ Rs 148.28 / sqm	**Rs 1448.40**	
30	17.2.1 Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 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:W.C. pan with ISI marked white solid plastic seat and lid							
		1					1.000	
						Total Quantity	1.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	1.000 each	
						Say 1.000 each @ Rs 4514.05 / each	**Rs 4514.05**	
31	17.7.3 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:White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps							
		1					1.000	
						Total Quantity	1.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	1.000 each	
						Say 1.000 each @ Rs 2766.63 / each	**Rs 2766.63**	
32	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		1	3.600	3.600	0.150		1.944	

		1	1.200	1.500	0.150		0.270	
		1	4.390	3.600	0.150		2.371	
		1	1.710	1.890	0.150		0.485	
	Total Quantity						5.070 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						5.070 cum	
	Say 5.070 cum @ Rs 6505.61 / cum						**Rs 32983.44**	
33	11.36 Providing and fixing I st 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 @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.							
		-1	0.800		2.000		-1.600	
		1	5.400	2.000			10.800	
	Total Quantity						9.200 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						9.200 sqm	
	Say 9.200 sqm @ Rs 983.43 / sqm						**Rs 9047.56**	
34	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), including pointing the joints with white cement and matching pigment etc., complete.							
		1	1.200	1.500			1.800	
	Total Quantity						1.800 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						1.800 sqm	
	Say 1.800 sqm @ Rs 908.90 / sqm						**Rs 1636.02**	
35	11.41.2 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 20 mm thick cement mortar 1:4(1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete.Size of Tile 600 x 600 mm.							
		1	3.600	3.600			12.960	
		1	12.600	0.100			1.260	
		1	7.000	1.000			7.000	

						Total Quantity	21.220 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	21.220 sqm	
						Say 21.220 sqm @ Rs 1478.06 / sqm	**Rs 31364.43**	
36	od236769/2019_2020 Supplying and fixing in position R.C.C. cylindrical septic tank of size 2.50m length, .75m dia and 50mm shell thickness of 1000 ltr capacity for 20 users consists of 3 chambers with one inlet and one outlet fitted with P.V.C. pipe and 2 manhole covers with stainless steel handle etc.. complete including all cost as per the direction of the departmental officers at site 							
		1					1.000	
						Total Quantity	1.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	1.000 each	
						Say 1.000 each @ Rs 15349.31 / each	**Rs 15349.31**	
37	18.7.5 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 - Exposed on wall40 mm nominal outer dia pipes							
		1	9.000				9.000	
						Total Quantity	9.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	9.000 metre	
						Say 9.000 metre @ Rs 509.01 / metre	**Rs 4581.09**	
38	18.7.2 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 - Exposed on wall20 mm nominal outer dia pipes							
		1	5.000				5.000	
						Total Quantity	5.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	5.000 metre	
						Say 5.000 metre @ Rs 237.61 / metre	**Rs 1188.05**	
39	50.18.8.9.1							

	Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes with one step PVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chased and making good the wall etc. 110 mm pipe 6kgf/cm2							
		1	5.000				5.000	
						Total Quantity	5.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	5.000 metre	
						Say 5.000 metre @ Rs 576.70 / metre	**Rs 2883.50**	
40	17.29 Providing and fixing 100 mm sand cast Iron grating for gully trap.							
		1					1.000	
						Total Quantity	1.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	1.000 each	
						Say 1.000 each @ Rs 38.62 / each	**Rs 38.62**	
41	17.35.1.2 Providing and fixing soil, waste and vent pipes:100 mm diaCentrifugally cast (spun) iron socket & spigot (S & S) pipe as per IS : 3989							
		1	5.000				5.000	
						Total Quantity	5.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	5.000 metre	
						Say 5.000 metre @ Rs 1216.95 / metre	**Rs 6084.75**	
42	17.69.1 Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.Waste coupling 31 mm dia of 79 mm length and 62 mm breadth weighing not less than 45 gms							
		1					1.000	
						Total Quantity	1.000 each	
						Total Deducted Quantity	0.000 each	
						Net Total Quantity	1.000 each	
						Say 1.000 each @ Rs 109.00 / each	**Rs 109.00**	
43	18.48A Providing and fixing rectangular high density polyethylene water storageloft tank with cover, conforming to ISI : 12701, colour of opaque white or asapproved by Engineer-in-charge. The rate includes making necessary holesfor inlet, outlet & over flow pipes. The base support i/c fittings & fixtures fortank shall be							

	paid separately.							
		1				500.0	500.000	
						Total Quantity	500.000 Litre	
						Total Deducted Quantity	0.000 Litre	
						Net Total Quantity	500.000 Litre	
						Say 500.000 Litre @ Rs 9.57 / Litre	**Rs 4785.00**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
	5 APPENDIX E FLOOD CONTROL/PROTECTION BUND							
1	od236731/2019_2020 :Supplying at site of work granite stones 20-40dm3 in size (75%30 to 40 dm3 and 25%of 20 to 30 dm3) including stacking at site for premeasurement. Deducting not less than 15% for voids asfixed by the deptl. officers at site. 							
		2*2	2200.000			1.61	14124.000	
		1*2	1300.000			1.61	4173.000	
						Total Quantity	18297.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	18297.000 cum	
						Say 18297.000 cum @ Rs 1835.86 / cum	**Rs 33590730.42**	
2	od236738/2019_2020 Conveyance of granite stones 20-40dm3 in size from stack at site and dumping in position to lines and levels to form the protection work as per approved design including all incidental charges etc. complete.							
		18297					18297.000	
						Total Quantity	18297.000 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	18297.000 cum	
						Say 18297.000 cum @ Rs 423.32 / cum	**Rs 7745486.04**	
3	od236741/2019_2020 DRY RUBBLE MASONRY _ Dry rubble without concrete levelling course masonry with good quality blasted rubble including packing to compactness to lines and levels cost and conveyance of all materials labour charges etc. complete as per direction of Departmental officers at site							
		2*2	2200.000	0.450	2.250		8910.000	
		1*2	1300.000	0.450	2.250		2632.500	
						Total Quantity	11542.500 cum	
						Total Deducted Quantity	0.000 cum	
						Net Total Quantity	11542.500 cum	

	Say 11542.500 cum @ Rs 2880.07 / cum						**Rs 33243207.98**	
4	od236745/2019_2020 Centering and shuttering including strutting, propping etc. and removal of form work for: Foundations, footings, bases for columns							
		2*2*2	2200.000		0.075		1320.000	
		1*2*2	1300.000		0.075		390.000	
		5	0.500		0.075		0.188	
	Total Quantity						1710.188 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						1710.188 sqm	
	Say 1710.188 sqm @ Rs 291.05 / sqm						**Rs 497750.22**	
5	od236748/2019_2020 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
		2*2	2200.000	0.500	0.075		330.000	
		1*2	1300.000	0.500	0.075		97.500	
	Total Quantity						427.500 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						427.500 cum	
	Say 427.500 cum @ Rs 7393.40 / cum						**Rs 3160678.50**	
6	od236736/2019_2020 EARTH WORK FILLING- Supplying contractors own earth including cost of conveyance and royalty and filling (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.							
		2	2200.000	(8.4+3.3)/2	1.800		46332.000	
	Total Quantity						46332.000 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						46332.000 cum	
	Say 46332.000 cum @ Rs 444.35 / cum						**Rs 20587624.20**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
6 APPENDIX F1- MECHANICAL WORKS-FABRICATION, SUPPLY AND ERECTION OF MS AND SS EMBEDDED PARTS(SS304 L Grade) FOR 4 NOS. OF REGULATOR SHUTTERS								
1	85.101 Supply of MS plates confirming to IS 2062GrB including cost of conveyance charges							

	Shutter size (10mx2m) 4 nos secondary embedded parts							
	Wheel Track- Web	2*4	5.200	0.200	0.016	7850.0	1044.993	
	Wheel Track- Flange	4*4	5.200	0.150	0.016	7850.0	1567.489	
	Web stiffener for Wheel track (2 sides)	44*4	0.200	0.065	0.008	7850.0	143.687	
	Guide track web	2*4	7.200	0.150	0.020	7850.0	1356.480	
	Guide track flange	2*4	7.200	0.150	0.016	7850.0	1085.184	
	Sill beam alignment plate	22*4	0.220	0.100	0.010	7850.0	151.977	
	Web stiffener for sill beam	44*4	0.200	0.046	0.008	7850.0	101.686	
	Stiffener for sill beam under vertical seal	2*4	0.200	0.200	0.008	7850.0	20.097	
	Strap for vertical seal track	28*4	0.500	0.100	0.008	7850.0	351.680	
	Base plate for dogging beam	4*4	0.300	0.300	0.016	7850.0	180.864	
	Shutter size (10mx2m) 4 nos primary embedded parts							
	Anchoring plate for wheel track	24*4	0.150	0.100	0.010	7850.0	113.040	
	Anchoring plate for wheel track(side)	24*4	0.100	0.100	0.010	7850.0	75.361	
	Anchoring plate for guide track	30*4	0.150	0.100	0.010	7850.0	141.300	
	Anchoring plate for sill beam	22*4	0.220	0.100	0.010	7850.0	151.977	
	Anchoring plate for vertical seal track	28*4	0.100	0.100	0.010	7850.0	87.921	
						Total Quantity	6573.736 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	6573.736 kg	
						Say 6573.736 kg @ Rs 64.18 / kg	**Rs 421902.38**	
2	85.102 Supply of MS Tees, Angles, Joists, ISMB, ISMC confirming to IS2062GrA/B including cost of conveyance charges							
	M.S section (10m x 2m - 4nos) Prim & Sec Em Parts							

	Supporting ISA for block outs 25x25x5-Wheel track- primary	4*4	5.200			1.8	149.761	
	Supporting ISA for block outs 25x25x5-guide track- primary	2*4	7.200			1.8	103.680	
	Supporting ISA for block outs 50x50x6-sill beam- primary	1*4	10.900			4.5	196.201	
	Supporting ISA for block outs 25x25x5-vertical seal track-primary	4*4	3.200			1.8	92.161	
	Angle piece for side alignment of wheel track ISA 75x75x8-Wheel track - secondary	44*4	0.080			8.9	125.313	
	Vertical seal seat, ISA 130x130x10-secondary	2*4	3.200			19.7	504.320	
	Sill beam ISMB 200x100	1*4	10.900			25.4	1107.440	
							Total Quantity	2278.876 kg
							Total Deducted Quantity	0.000 kg
							Net Total Quantity	2278.876 kg
							Say 2278.876 kg @ Rs 66.13 / kg	**Rs 150702.07**
3	85.107 Supply of MS round bar including cost of conveyance charges							
	M.S rods (10mx 2m - 4nos) Em Parts							
	nchoring rod - primary- wheel track, ISRO 16	24*2*4	0.300			1.58	90.893	
	nchoring rod - primary- wheel track (side), ISRO 16	24*1*4	0.300			1.58	45.447	
	nchoring rod - primary- guide track, ISRO 16	30*2*4	0.300			1.58	113.616	

	nchoring rod - primary- sill beam, ISRO 16	22*2*4	0.300			1.58	83.319	
	nchoring rod - primary- vertical seal track, ISRO 16	14*1*4	0.320			1.58	28.278	
	nchoring rod - primary- vertical seal track, ISRO 16-	14*1*4	0.320			1.58	28.278	
	Dogging beam base, Anchoring rod, ISRO 16	16*4	0.170			1.58	17.169	
						Total Quantity	407.000 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	407.000 kg	
						Say 407.000 kg @ Rs 64.18 / kg	**Rs 26121.26**	
4	od238151/2019_2020 Supply of MS Bolts and Nuts							
	Wheel track - M 16- 145 Long Bolt, 2 nuts & 2 washer	24*2*4				0.35	67.392	
	Wheel track - (side) M 16- 160 Long Bolt, 2 nuts & 2 washer	24*2*4				0.37	71.040	
	Guide track - M 16- 110Long Bolt, 2 nuts & 2 washer	30*2*4				0.29	69.120	
	Seal track - M 16- 120 Long Bolt, 2 nuts & 2 washer- side	14*2*4				0.3	34.048	
	Seal track - M 16- 330 Long Bolt, 2 nuts & 2 washer	14*2*4				0.66	73.920	
	sill beam - M 16- 160 Long Bolt, 2 nuts & 2 washer	22*2*4				0.37	65.121	
						Total Quantity	380.641 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	380.641 kg	

						Say 380.641 kg @ Rs 78.35 / kg	**Rs 29823.22**	
5	85.108 Fabrication, erection and commissioning of Structural steel Embedded parts in IS2062 Grade and accessories as per approved specifications, drawings and directions of deptl officer at site including cost of labour , machinery , incidental and handling charges etc complete but excluding cost of material already supplied							
	M.S Plates	1	6573.729				6573.729	
	M.S Sections	1	2278.872				2278.872	
	Ms Round	1	407.000				407.000	
						Total Quantity	9259.601 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	9259.601 kg	
						Say 9259.601 kg @ Rs 75.87 / kg	**Rs 702525.93**	
6	od238200/2019_2020 Fabrication, supply, erection and assembling of wheel track, sill seat and seal track in correct position and alignment by welding SS embedded parts in 304L Grade as per approved specifications, drawings and directions of deptl officer at site including cost of all materials, labour, welding, shearing, grinding etc, lead and lift, conveyance, incidental and handling etc complete. Rate analysis SS embedded parts 2.6Qtl							
	Shutter size (10m x 2m) ss embedded parts							
	vertical seal seat-SS	2*4	3.200	0.080	0.008	7900.0	129.434	
	Sill seat- SS	1*4	10.900	0.120	0.008	7900.0	330.663	
	Wheel track	2*4	5.200	0.120	0.012	7900.0	473.242	
	verticals seal bottom with sill beam	2*4	0.200	0.100	0.008	7900.0	10.113	
						Total Quantity	943.452 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	943.452 kg	
						Say 943.452 kg @ Rs 488.51 / kg	**Rs 460885.74**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
7 APPENDIX F 2- MECHANICAL WORKS- SHUTTER								
1	85.101 Supply of MS plates confirming to IS 2062GrB including cost of conveyance charges							
	Shutter 4 nos							
	Skinplate	1*4	10.700	2.000	0.012	7850.0	8063.520	
	End box - plate	4*4	2.000	0.410	0.012	7850.0	1235.904	

	End box - stiffener plate	16*4	0.140	0.410	0.012	7850.0	346.054	
	Lock plate for roller	4*4	0.180	0.170	0.010	7850.0	38.434	
	roller eccentric dia 150	4*4				1.39	22.240	
	Lock plate for roller	4*4	0.180	0.170	0.012	7850.0	46.121	
	Lock plate for roller	4*4	0.170	0.080	0.012	7850.0	20.498	
	Side Guide-Plate	4*4	0.200	0.200	0.120	7850.0	602.881	
	Plate for side Guide	8*4	0.210	0.078	0.010	7850.0	41.147	
	Plate - middle	4*4	0.0115	0.050	0.300	7850.0	21.666	
	Horizontal girder - web	4*4	10.100	0.750	0.012	7850.0	11417.040	
	Horizontal girder - Flange	4*4	10.600	0.200	0.020	7850.0	5325.440	
	Web- Stiffner	32*4*2	0.750	0.094	0.012	7850.0	1700.122	
	Web- Stiffner ends	4*4*2	0.485	0.094	0.012	7850.0	137.427	
	Pad plate (bottom side of pulley bracket)	2*4	0.450	0.750	0.012	7850.0	254.341	
	Full depth stiffner-web	5*4	2.000	0.750	0.012	7850.0	2826.001	
	Full depth stiffner-flange	5*4	2+.75	0.200	0.020	7850.0	1727.001	
	vertical stiffener	20*4	2.000	0.150	0.012	7850.0	2260.800	
	vertical seal base (L type seal)	2*4	2.000	0.105	0.200	7850.0	2637.601	
	vertical seal base (angular type)	2*4	2.000	0.105	0.200	7850.0	2637.601	
	Flat seal clamp bottom	1*4	10.700	0.090	0.010	7850.0	302.382	
	Flat seal-stopper	1*4	10.700	0.020	0.020	7850.0	134.392	
	Lifting bracket-leg	4*4	0.700	0.400	0.020	7850.0	703.360	
	Lifting bracket stiffner-outer	4*4	0.700	0.300	0.010	7850.0	263.760	
	Lifting bracket skin plate side	4*4	0.700	0.300	0.010	7850.0	263.760	
	Space for pulley	4*4	0.200	0.200	0.080	7850.0	401.921	
	Lock plate for pulley shaft	8*4	0.120	0.050	0.010	7850.0	15.073	
	Rope guard	2*4	0.110	0.740	0.00315	7850.0	16.103	

	Bottom block diaphram	4*4	1.360	0.720	0.012	7850.0	1475.851	
	Plate outer	12*4	0.170	0.170	0.010	7850.0	108.896	
	Plate inner	4*4	0.160	0.160	0.020	7850.0	64.308	
	Lock plate for pulley shaft	24*4	.18	0.050	0.010	7850.0	67.824	
	Stiffener	4*4	0.335	0.110	0.008	7850.0	37.027	
	Plate	8*4	0.200	0.090	0.010	7850.0	45.216	
	Plate- bracket	6*4	0.150	0.110	0.010	7850.0	31.086	
	Plate- bracket	6*4	0.150	0.080	0.010	7850.0	22.608	
	Spacer OD - 200x8 thick	4*4	0.200	0.200	0.008	7850.0	40.193	
	Space OD 120x10 thick	2*4	0.120	0.120	0.010	7850.0	9.044	
	dogging beam plate	4*4	1.400	0.100	0.010	7850.0	175.840	
	dogging beam plate	4*4	1.400	0.180	0.010	7850.0	316.512	
	dogging beam plate	4*4	0.190	0.090	0.010	7850.0	21.478	
	dogging beam plate-rib	8*4	0.180	0.080	0.010	7850.0	36.173	
						Total Quantity	45914.646 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	45914.646 kg	
						Say 45914.646 kg @ Rs 64.18 / kg	**Rs 2946801.98**	
2	85.102 Supply of MS Tees, Angles, Joists, ISMB, ISMC confirming to IS2062GrA/B including cost of conveyance charges							
	Bracing Angle - vertical- ISA 75x75x8- top	4*4	0.780			8.9	111.072	
	Bracing Angle - vertical- ISA 75x75x8- middle	4*4	0.530			8.9	75.473	
	Bracing Angle - vertical- ISA 75x75x8- top	4*4	0.450			8.9	64.080	

	Bracing Angle - vertical- ISA 75x75x8- middle	4*4	0.370			8.9	52.688	
	Top hor. Angle ISA 100x100x10	1*4	10.100			14.9	601.960	
	vertical seal clamp(Angle type seal) ISA 75x75x8	2*4	2.000			8.9	142.400	
	vertical seal clamp(L type seal) ISA 75x75x8	2*4	2.000			8.9	142.400	
	Dogging beam cross angle-ISA 75x75x8	8*4	0.020			8.9	5.697	
						Total Quantity	1195.770 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	1195.770 kg	
						Say 1195.770 kg @ Rs 66.13 / kg	**Rs 79076.27**	
3	85.107 Supply of MS round bar including cost of conveyance charges							
	M.S Rods Shutter							
	Dogging beam connecting rod ISRO 12m	4*4	0.385			0.89	5.483	
	Chain- Dogging beam	1*4	2.000			0.85	6.800	
						Total Quantity	12.283 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	12.283 kg	
						Say 12.283 kg @ Rs 64.18 / kg	**Rs 788.32**	
4	85.110 Fabrication and supply of Structural steel wheel gate and accessories as per approved specifications, drawings and directions of deptl officer at site including cost of labour, machinery, all leads and lifts, incidental and handling charges etc complete but excluding cost of material already supplied							
	MS Plates	4062.573					4062.573	
	MS Sections	1195.768					1195.768	
	MS Rods	12.318					12.318	
						Total Quantity	5270.659 kg	
						Total Deducted Quantity	0.000 kg	

						Net Total Quantity	5270.659 kg	
						Say 5270.659 kg @ Rs 63.11 / kg	**Rs 332631.29**	
5	85.111 Erection of the gates safely in the grooves , assembling and aligning including cost of all machinery, labour all incidental and conveyance charges etc complete as per direction of departmental officer at site							
	MS Plates	40262.573					-40262.573	
	MS Rods	1195.768					-1195.768	
	MS Rods	12.318					-12.318	
						Total Quantity	0.000 kg	
						Total Deducted Quantity	-41470.659 kg	
						Net Total Quantity	-41470.659 kg	
						Say -41470.659 kg @ Rs 6.10 / kg	**Rs -252971.02**	
6	od238151/2019_2020 Supply of MS Bolts and Nuts							
	SHUTTER SIZE 10m x 2m							
	Supply of MS bolts and nuts for side guide - M16X40 Hex screw with washer	16*4*4				0.15	38.400	
	M12 x 30 long Hex screw with washer for roller	12*4*4				0.15	28.800	
	M16 x 40 long Hex bolt with washer for pulley (outer)	16*4				0.15	9.600	
	M16x30 long Hex bolt with washer for lifting arrangement	16*4				0.15	9.600	
	M16x30 long Hex bolt with washer for lifting arrangement	16*2*4				0.15	19.200	
						Total Quantity	105.600 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	105.600 kg	
						Say 105.600 kg @ Rs 78.35 / kg	**Rs 8273.76**	
7	85.116 Supplying and fixing in correct position with specified initial interface the flat type rubber seal confirming							

	to IS 11855 to the gates including cost of SS bolts and nut all labour and machinery and incidental and conveyance charges complete as per approved specification and drawing							
	Flat seal							
	flat type rubber seals	1*4	10.700				42.800	
						Total Quantity	42.800 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	42.800 metre	
						Say 42.800 metre @ Rs 1910.98 / metre	**Rs 81789.94**	
8	85.117 Supplying and fixing in correct position with specified initial interface the Angular type rubber seal confirming to IS11855 to the gates including cost of SS bolts and nuts and all labour and machinery and incidental and conveyance charges complete as per approved specifications and drawings							
	Angular type rubber seal							
	Angular type rubber seal at outer vertical side of shutter	2*4	2.000				16.000	
						Total Quantity	16.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	16.000 metre	
						Say 16.000 metre @ Rs 2977.08 / metre	**Rs 47633.28**	
9	85.118 Supplying and fixing in correct position with specified initial interface L-type / bulb nose rubber seal confirming to IS11855 to the gates including cost of SS bolts and nuts and all labour and machinery and incidental and conveyance charges complete as per approved specifications and drawings							
	Bulb nose type rubber seal at inner vertical side of shutter	2*4	2.000				16.000	
	Shutter size (10m x 2m) 4nos							
	Bracing Angle-vertical- ISA 75x75x8-top	4*4	0.780			0.3	3.744	
	Bracing Angle-vertical- ISA 75x75x8-middle	4*4	0.530			0.3	2.544	
	Bracing Angle-vertical- ISA 75x75x8-middle	4*4	0.450			0.3	2.160	

	Bracing Angle-vertical- ISA 75x75x8-middle	4*4	0.370			0.3	1.776	
	Top hor. Angle ISA 100x100x10	1*4	10.100			0.4	16.160	
	Vertical seal clamp(Angle type seal) ISA 75x75x8	2*4	2.000			0.3	4.800	
	shutter (10mx2m) 4nos							
	Skinplate	1*4	10.700	2.000		2.0	171.200	
	End box-plate	4*4	2.000	0.410		2.0	26.240	
	End box- Stiffener plate	16*4	0.140	0.410		2.0	7.348	
	Lock plate for roller	4*4	0.180	0.170		2.0	0.980	
	roller eccentric dia 150	4*4				2.0	32.000	
							Total Quantity	284.952 metre
							Total Deducted Quantity	0.000 metre
							Net Total Quantity	284.952 metre
							Say 284.952 metre @ Rs 2681.08 / metre	**Rs 763979.11**
10	85.122 Supplying and fixing cast steel thrust roller assembly having 300mm Dia, 90mm tread width, SS(304) shaft and 22316E self aligning spherical roller bearing and accessories as per approved specifications and drawings including cost of all materials, machineries, labour , all lift and lead, incidental and conveyance charges etc complete							
	Rollers							
	Rollers	4*4	1.000				16.000	
							Total Quantity	16.000 no
							Total Deducted Quantity	0.000 no
							Net Total Quantity	16.000 no
							Say 16.000 no @ Rs 43661.02 / no	**Rs 698576.32**
11	85.112 Painting all the exposed surfaces of the gate and embedded parts with two coats of epoxy coal tar black paint confirming to IS14948 with a minimum film thickness of 150+/-5 microns per each coat over two coats of priming coat applied with zinc primer containing not less than 85% of zinc dry film with a film thickness of 70+/-5 microns , so that the total film thickness of all coats including priming coat at any rate is not less than 350microns over the grit blasted and cleaned surface to class A standard of IS 14177 including cost of all materials , labour charges , cost of testing all painting materials, all incidental charges, hire of T&P etc complete as per the direction of departmental officer at site							

	MS Rods for shutter (10mx2m) 4nos							
	Dogging beam connecting rod ISRO 12m	4*4	0.385			0.01	0.062	
	Chain- Dogging beam	1*4	2.000			0.02	0.160	
	Shutter size (10m x 2m) 4nos							
	Bracing Angle-vertical- ISA 75x75x8-top	4*4	0.780			0.3	3.744	
	Bracing Angle-vertical- ISA 75x75x8-middle	4*4	0.530			0.3	2.544	
	Bracing Angle-vertical- ISA 75x75x8-middle	4*4	0.450			0.3	2.160	
	Bracing Angle-vertical- ISA 75x75x8-middle	4*4	0.370			0.3	1.776	
	Top hor. Angle ISA 100x100x10	1*4	10.100			0.4	16.160	
	Vertical seal clamp(Angle type seal) ISA 75x75x8	2*4	2.000			0.3	4.800	
	Vertical seal clamp(L type seal) ISA 75x75x8	2*4	2.000			0.3	4.800	
	Dogging beam across angle- ISA 75x75x8	8*4	0.020			0.3	0.192	
	shutter (10m x 2m) 4nos							
	Skinplate	1*4	10.700	2.000		2.0	171.200	
	End box - plate	4*4	2.000	0.410		2.0	26.240	
	End box - Stiffener plate	16*4	0.140	0.410		2.0	7.348	
	Lock plate for roller	4*4	0.180	0.170		2.0	0.980	
	roller eccentric dia 150	4*4				2.0	32.000	
	Lock plate for roller	4*4	0.180	0.170		2.0	0.980	
	Lock plate for roller	4*4	0.170	0.080		2.0	0.436	
	SIDE GUIDE- Plate	4*4	0.200	0.200		2.0	1.281	

	Plate for side guide	8*4	0.210	0.200		2.0	2.688	
	Plate - middle	4*4	0.0115	0.050		2.0	0.019	
	Horizontal girder - web	4*4	10.100	0.750		2.0	242.400	
	Horizontal girder - flange	4*4	10.600	0.200		2.0	67.840	
	Web- stiffener	32*4*2	0.750	0.094		2.0	36.096	
	web- stiffener ends	4*4*2	0.485	0.094		2.0	2.918	
	Pad plate (bottom side of pulley bracket)	2*4	0.450	0.750		2.0	5.400	
	Full depth stiffener-web	5*4	2.000	0.750		2.0	60.000	
	Full depth stiffener-Flange	5*4	2.000+.75	0.200		2.0	22.000	
	Vertical stiffener	20*4	2.000	0.150		2.0	48.000	
	Vertical seal base (L type seal)	2*4	2.000	0.105		2.0	3.360	
	Vertical seal base (Angle type seal)	2*4	2.000	0.105		2.0	3.360	
	Flat seal clamp bottom	1*4	10.700	0.090		2.0	7.704	
	Flat seal - stoper	1*4	10.700	0.020		2.0	1.712	
	Lifting bracket-leg	4*4	0.700	0.400		2.0	8.960	
	Lifting bracket stiffener- outer	4*4	0.700	0.300		2.0	6.720	
	lifting bracket skin plate side	4*4	0.700	0.300		2.0	6.720	
	Spacer for pulley	4*4	0.200	0.200		2.0	1.281	
	Lock plate for pulley shaft	8*4	0.120	0.050		2.0	0.384	
	Rope guard	2*4	0.110	0.740		2.0	1.303	
	Bottom block Diaphragm	4*4	1.360	0.720		2.0	31.335	
	Plate outer	12*4	0.170	0.170		2.0	2.775	
	Plate inner	4*4	1.360	0.160		2.0	6.964	
	Lock plate for pulley shaft	24*4	0.180	0.050		2.0	1.728	
	Stiffener	4*4	0.335	0.110		2.0	1.180	

	Plate	8*4	0.200	0.090		2.0	1.152	
	Plate- bracket	6*4	0.200	0.110		2.0	1.056	
	Plate- bracket	6*4	0.150	0.080		2.0	0.577	
	Spacer OD-200 x 8 thick	4*4	0.200	0.200		2.0	1.281	
	Spacer OD-200 x 10 thick	2*4	0.120	0.120		2.0	0.231	
	Dogging beam plate	4*4	1.400	0.100		2.0	4.480	
	Dogging beam plate	4*4	1.400	0.180		2.0	8.064	
	Dogging beam plate	4*4	0.190	0.090		2.0	0.548	
	Dogging beam plate-rib	8*4	0.180	0.080		2.0	0.922	
						Total Quantity	868.021 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	868.021 sqm	
						Say 868.021 sqm @ Rs 810.94 / sqm	**Rs 703912.95**	
Sl No	Description	No	L	B	D	CF	Quantity	Remark
8 APPENDIX F 3 - MECHANICAL WORKS- HOISTING BRIDGE AND UNITS								
1	85.101 Supply of MS plates confirming to IS 2062GrB including cost of conveyance charges							
	MS Plates (10m x 2m) 4nos							
	Main Girder Web	2*4	12.000	1.050	0.016	7850.0	12660.481	
	Main girder flange	4*4	12.000	0.200	0.020	7850.0	6028.801	
	Foundation plate	8*4	0.400	0.400	0.016	7850.0	643.073	
	Plate for foundation bolt 120	24*4	0.120	0.0936	0.012	7850.0	101.574	
	Splice plate girder-web	4*4	0.950	0.600	0.012	7850.0	859.104	
	Splice plate girder-flange	2*4	0.600	0.180	0.012	7850.0	81.389	
	web stiffener at the end	16*4	1.050	0.195	0.010	7850.0	1028.665	
	web stiffener	32*4	0.540	0.094	0.010	7850.0	510.037	
	web stiffener	16*4	0.925	0.094	0.010	7850.0	436.837	
	web stiffener plate outer side	40*4	1.050	0.094	0.010	7850.0	1239.672	

	Plate for pulley C1-bracket	4*4	1.600	0.720	0.016	7850.0	2315.060	
	Lock plate for pulley	4*4	0.015	0.050	0.010	7850.0	0.943	
	Spacer for Pulley Od 200	4*4	0.200	0.157	0.008	7850.0	31.551	
	Flat (handrail)	2*4	12+1	0.050	0.008	7850.0	326.561	
	Base plate-plummer block	8*4	0.290	0.140	0.010	7850.0	101.988	
	Bracket-plummer block	4*4	0.290	0.250	0.010	7850.0	91.060	
	base plate - plummer block	8*4	0.250	0.120	0.010	7850.0	75.360	
	base plate for gear box	1*4	0.375	0.300	0.010	7850.0	35.325	
	Bracket - GB	4*4	0.050	0.050	0.010	7850.0	3.141	
	cross plate for bracket	2*4	0.270	0.050	0.010	7850.0	8.479	
	cross plate bracket	1*4	0.350	0.120	0.010	7850.0	13.188	
	bracket plate for - coupling	1*4	0.350	0.012	0.010	7850.0	1.319	
	Base plate for - break	2*4	0.050	0.050	0.010	7850.0	1.571	
	base plate for break	1*4	0.250	0.200	0.010	7850.0	15.701	
	base plate for - hand operation	1*4	0.045	0.010	0.010	7850.0	0.142	
	key	1*4	0.140	0.012	0.008	7850.0	0.423	
	key	2*4	0.050	0.007	0.008	7850.0	0.176	
	stiffener plate	2*4	0.050	0.050	0.010	7850.0	1.571	
	bracket for motor	1*4	0.100	0.050	0.010	7850.0	1.571	
	diaphram plate for rope drum-leg	4*4	0.350	0.460	0.020	7850.0	404.432	
	lock plate for shaft	4*4	0.280	0.100	0.012	7850.0	42.202	
	plummer block base plate	2*4	0.060	0.690	0.010	7850.0	26.000	
	plummer block base plate	2*4	1.540	0.060	0.010	7850.0	58.028	
	vertical bracket plate	8*4	0.080	0.230	0.008	7850.0	36.977	

	vertical bracket plate-centre	4*4	0.080	0.150	0.008	7850.0	12.058	
	stiffner plate for ISMC	10*4	0.180	0.260	0.008	7850.0	117.562	
	stiffner plate	2*4	0.080	0.290	0.008	7850.0	11.656	
	stiffner plate plummer block	4*4	0.275	0.080	0.020	7850.0	55.265	
	base plate plummer block	4*4	0.255	0.080	0.030	7850.0	76.868	
	spacer od 200 x id 728 thick	4*4	0.200	0.156	0.008	7850.0	31.350	
	covers of rope drum 2nos/shutter-plate	4*4	0.060	0.035	0.005	7850.0	1.319	
	sheet side	2*4	2.900	0.480	0.0031	7850.0	270.995	
	sheet top	4*4	1.470	0.680	0.0031	7850.0	389.205	
	sheet side	2*4	0.210	0.310	0.0031	7850.0	12.674	
	flat	4*4	0.995	0.050	0.005	7850.0	31.243	
	flat	2*4	1.250	0.050	0.005	7850.0	19.625	
	drive unit cover sheet body side	2*4	1.450	1.130	0.0031	7850.0	318.984	
	side body sheet	1*4	1.130	0.820	0.0031	7850.0	90.196	
	side sheet	1*4	0.830	0.820	0.0031	7850.0	66.250	
	sheet for cover top	1*4	1.500	0.840	0.0031	7850.0	122.649	
	sheet for side window	1*4	0.150	0.150	0.008	7850.0	5.652	
	plate for side opening	2*4	0.880	0.055	0.005	7850.0	15.198	
						Total Quantity	28831.151 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	28831.151 kg	
						Say 28831.151 kg @ Rs 64.18 / kg	**Rs 1850383.27**	
2	85.102 Supply of MS Tees, Angles, Joists, ISMB, ISMC confirming to IS2062GrA/B including cost of conveyance charges							
	M.S sections (10m x 2m) 4nos							
	Cross grinder C2,ISMC 150 x 75	2*4	1.000			16.4	131.200	
	Cross grinder C4,ISMC 300 x 90	2*4	1.992			35.8	570.509	

	Cross grinder C5,ISMC 400 x 100	2*4	1.992			49.4	787.239	
	Cross grinder C3,ISMC 200x 75	4*4	1.400			22.1	495.040	
	Cross grinder C6,ISMC 300 x 90	2*4	1.992			35.8	570.509	
	Cross grinder C7,ISMC 150 x 75	8*4	1.992			16.4	1045.402	
	Cross angle ISA 75x75x8	6*4	2.850			8.9	608.761	
	Cleat (inner) ISA 65x65x6	48*4	0.100			8.9	170.881	
	Cleat for channel ISA 75x75x8	48*4	0.100			8.9	170.881	
	Toe guard for walkway-1, ISA 65x65x6	2*4	12.000			5.8	556.800	
	Support for walkway-2, ISMC 150x75	16*4	0.610			8.9	347.456	
	Support for chequered plate, ISA 75x75x8	16*4	1.500			8.9	854.401	
	Support for chequered plate, ISA 75x75x8	10*4	2.500			8.9	890.000	
	Hand rail-post, ISA 65x65x6	28*4	1.250			5.8	812.000	
	Cleat for hand rail ISA 75x75x8	16*4	0.150			8.9	85.440	
	DU frame ISMC 150x75	1*4	0.700			16.4	45.920	
	frame-1 ISMC 150x75	2*4	0.7000			16.4	91.840	
	frame-2 ISMC 150x75	2*4	1.600			16.4	209.920	
	DU support for ISA 75x75x8	2*4	0.500			8.9	35.600	
	DU support for ISA 75x75x8	2*4	0.400			8.9	28.481	
	DU support for ISA 75x75x8	4.	0.400			8.9	14.241	

	DU support for ISA 75x75x8	4*4	0.800			8.9	113.921	
	DU support for ISA 50x506	5*4	0.700			4.5	63.000	
	DU support for ISA 100x100x8	1*4	0.250			12.1	12.100	
	DU support for ISA 50x50x6	2*4	0.700			4.5	25.200	
	DU support for ISA 75x75x8	2*4	0.700			4.5	25.200	
	DU support for ISA 75x75x8	2*4	0.700			4.5	25.200	
	RD frame ISMC 300x90 - 1	2*4	1.540			35.8	441.056	
	RD frame ISMC 300x90 - 2	2*4	0.800			35.8	229.120	
	RD frame ISMC 300x90 - 3	2*4	0.850			35.8	243.440	
	RD frame ISMC 300x90 - 4	2*4	0.600			35.8	171.840	
	RD frame ISMC 300x90 - 5	2*4	0.765			35.8	219.096	
	RD frame ISMC 300x90 - 6	2*4	0.210			35.8	60.144	
	Cover - RD cover frame-1 ISA 35x35x5	2*4	2.400			2.6	49.920	
	RD cover frame-2 ISA 35x35x5	4*4	0.490			2.6	20.384	
	RD cover frame-3 ISA 35x35x5	2*4	0.836			2.6	17.389	
	RD cover frame-4 ISA 35x35x5	2*4	0.110			2.6	2.289	
	RD cover frame-5 ISA 35x35x5	2*4	0.230			2.6	4.785	
	RD cover frame-6 ISA 35x35x5	8*4	0.420			2.6	34.944	
	GEAR box-DU cover Frame-1 35x35x5	2*4	0.850			2.6	17.680	

	DU cover frame-2 ISA 35x35x5	2*4	1.050			2.6	21.841	
	DU cover frame-3 ISA 35x35x5	2*4	0.175			2.6	3.640	
	DU cover frame-4 ISA 35x35x5	2*4	1.200			2.6	24.960	
	DU cover frame-5 ISA 35x35x5	2*4	0.850			2.6	17.680	
	DU cover frame-6 ISA 35x35x5	2*4	0.780			2.6	16.224	
	DU cover frame-7 ISA 35x35x5	2*4	1.535			2.6	31.928	
	DU cover frame-8 ISA 35x35x5	2*4	0.780			2.6	16.224	
	ISMC for dial guage 100x50	2*4	1.060			9.2	78.016	
	ISA 50x50x6	2*4	0.040			4.5	1.440	
						Total Quantity	10511.182 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	10511.182 kg	
						Say 10511.182 kg @ Rs 66.13 / kg	**Rs 695104.47**	
3	85.107 Supply of MS round bar including cost of conveyance charges							
	M.S rods (10m x 2m) 4nos							
	Rod 1 for hand operation 40mm dia	4	0.550			9.86	21.692	
	Rod 2 for hand operation 40mm dia	4	0.367			9.86	14.475	
	handle for RD cover 16mm dia	8	0.280			1.58	3.540	
	handle for RD cover 16mm dia	8	0.400			1.58	5.057	
	handle for RD cover 16mm dia	8	0.300			1.58	3.792	
	handle for DUcover 16mm dia	8	0.300			1.58	3.792	
						Total Quantity	52.348 kg	

						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	52.348 kg	
						Say 52.348 kg @ Rs 64.18 / kg	**Rs 3359.69**	
4	85.103 Supply of MS checquered plates including cost of conveyance charges							
	MS checkered plate 6mm thick	1*4	12.000	2.600		53.25	6645.600	
						Total Quantity	6645.600 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	6645.600 kg	
						Say 6645.600 kg @ Rs 73.33 / kg	**Rs 487321.85**	
5	od238296/2019_2020 Supply of NB 32mm GI pipe							
	Shutter size (10m x 2m) 4nos							
	Hand rails of hoist bridge	2	14+1			30.0	900.000	
	Hand rail pipe for ladder	2	3.500			7.0	49.000	
						Total Quantity	949.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	949.000 metre	
						Say 949.000 metre @ Rs 222.61 / metre	**Rs 211256.89**	
6	od238151/2019_2020 Supply of MS Bolts and Nuts							
	Shutter size (10mx2m) 4nos							
	Foundation bolts with 2 nuts& washer M25-750m long	24*4				2.46	236.160	
	M.s Bolts and nuts with washer m16 x 40	16*4				0.16	10.240	
	M.s Bolts and nuts lock plate pulley with washer m16 x 40	16*4				0.16	10.240	
	M.s Bolts and nuts with washer m16 x 35 Hex with washer - Rope drum	32*4				0.1	12.800	

	M.s Bolts and nuts with washer m16 x 100 Hex M.s Bolts and nuts with washer m16 x100 Hex with washer Rop and Drum	16*4				0.21	13.440	
	M.s Bolts and nuts with washer m16 x 100 Hex M.s Bolts and nuts with washer m12 x 50Hex with washer Rop and Drum cover	30*4				0.09	10.800	
	M8 x 50 Hex screw with washer - Rop drum cover	26*4				0.08	8.320	
	MS bolts and nutsM10 x 55 Hex with washer - Gear box	42*4				0.12	20.160	
							Total Quantity	322.160 kg
							Total Deducted Quantity	0.000 kg
							Net Total Quantity	322.160 kg
							Say 322.160 kg @ Rs 78.35 / kg	**Rs 25241.24**
7	85.124 Fabrication and supply of Hoisting bridge unit in structural steel confirming to IS2062Gr including ladder, covers for hoisting unit etc as per approved specifications, drawings and directions of deptl officer at site including cost of labour, machinery, incidental and handling charges for fixing handrails and allied works etc complete but excluding material already supplied and weight of pipes for hand rails etc							
	MS plates	1	28832.000				28832.000	
	MS sections	1	11172.772				11172.772	
	MS rods	1	52.347				52.347	
	Chequered plate	1	6645.600				6645.600	
							Total Quantity	46702.719 kg
							Total Deducted Quantity	0.000 kg
							Net Total Quantity	46702.719 kg
							Say 46702.719 kg @ Rs 59.15 / kg	**Rs 2762465.83**
8	85.136 Erection of the hoisting bridge unit including handrails , ladder and platform etc. in correct alignment and anchoring it ; setting and aligning the covers of the hoisting unit etc complete including cost of all labour,							

	machinery, incidental and conveyance , lead and lift charges etc complete but excluding cost of materials already supplied							
	M.S plates	1	28832.409				28832.409	
	M.S sections	1	11172.772				11172.772	
	M.S rods	1	52.347				52.347	
	Chequered plate	1	6645.600				6645.600	
	32NB pipe	1	37.000				37.000	
						Total Quantity	46740.128 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	46740.128 kg	
						Say 46740.128 kg @ Rs 3.40 / kg	**Rs 158916.44**	
9	od238297/2019_2020 Painting all the exposed surfaces of the hoisting bridge components with two coats of synthetic enamel paint with a minimum film thickness of 150+/-5 microns per each coat over two coats of priming coat applied with zinc rich primer containing not less than 85% of zinc on dry film thickness of 70+/- microns. So that the total film thickness of all coats including priming coat at any rate is not less than 350 microns over the grit blasted and cleaned surface to class A standard of IS14177 including cost of all materials, labour charges, cost of testing all painting materials, all incidental charges, hire of T & P etc complete as per the direction of department officers at the site Rate analysis for 10 m2 for existing shutters							
	M.S sections (10m x 2m) 4nos							
	Cross grinder C2,ISMC 150 x 75	2*4	1.000			0.6	4.800	
	Cross grinder C4,ISMC 300 x 90	2*4	1.992			0.96	15.299	
	Cross grinder C5,ISMC 400 x 100	2*4	1.992			1.2	19.124	
	Cross grinder C3,ISMC 200x 75	4*4	1.400			0.7	15.680	
	Cross grinder C6,ISMC 300 x 90	2*4	1.992			0.96	15.299	
	Cross grinder C7,ISMC 150 x 75	8*4	1.992			0.6	38.247	
	Cross angle ISA 75x75x8	6*4	2.850			0.3	20.520	
	Cleat (inner) ISA 65x65x6	48*4	0.100			0.26	4.993	
	Cleat for channel ISA 75x75x8	48*4	0.100			0.3	5.761	

	Toe guard for walkway-1, ISA 65x65x6	2*4	12.000			0.26	24.960	
	Support for walkway-2, ISMC 150x75	16*4	0.610			0.6	23.424	
	Support for chequered plate, ISA 75x75x8	16*4	1.500			0.3	28.800	
	Support for chequered plate, ISA 75x75x8	10*4	2.500			0.3	30.000	
	Hand rail-post, ISA 65x65x6	28*4	1.250			0.3	42.000	
	Cleat for hand rail ISA 75x75x8	16*4	0.150			0.26	2.496	
	DU frame ISMC 150x75	1*4	0.700			0.3	0.840	
	frame-1 ISMC 150x75	2*4	0.7000			0.6	3.360	
	frame-2 ISMC 150x75	2*4	1.600			0.6	7.680	
	DU support for ISA 75x75x8	2*4	0.500			0.6	2.400	
	DU support for ISA 75x75x8	2*4	0.400			0.3	0.960	
	DU support for ISA 75x75x8	4.	0.400			0.3	0.480	
	DU support for ISA 75x75x8	4*4	0.800			0.3	3.840	
	DU support for ISA 50x506	5*4	0.700			0.2	2.801	
	DU support for ISA 100x100x8	1*4	0.250			0.4	0.400	
	DU support for ISA 50x50x6	2*4	0.700			0.2	1.120	
	DU support for ISA 75x75x8	2*4	0.700			0.2	1.120	
	DU support for ISA 75x75x8	2*4	0.700			0.2	1.120	
	RD frame ISMC 300x90 - 1	2*4	1.540			0.96	11.828	

	RD frame ISMC 300x90 - 2	2*4	0.800			0.96	6.144	
	RD frame ISMC 300x90 - 3	2*4	0.850			0.96	6.528	
	RD frame ISMC 300x90 - 4	2*4	0.600			0.96	4.608	
	RD frame ISMC 300x90 - 5	2*4	0.765			0.96	5.876	
	RD frame ISMC 300x90 - 6	2*4	0.210			0.96	1.613	
	Cover - RD cover frame-1 ISA 35x35x5	2*4	2.400			0.14	2.688	
	RD cover frame-2 ISA 35x35x5	4*4	0.490			0.14	1.098	
	RD cover frame-3 ISA 35x35x5	2*4	0.836			0.14	0.937	
	RD cover frame-4 ISA 35x35x5	2*4	0.110			0.14	0.124	
	RD cover frame-5 ISA 35x35x5	2*4	0.230			0.14	0.258	
	RD cover frame-6 ISA 35x35x5	8*4	0.420			0.14	1.882	
	GEAR box-DU cover Frame-1 35x35x5	2*4	0.850			0.14	0.953	
	DU cover frame-2 ISA 35x35x5	2*4	1.050			0.14	1.177	
	DU cover frame-3 ISA 35x35x5	2*4	0.175			0.14	0.196	
	DU cover frame-4 ISA 35x35x5	2*4	1.200			0.14	1.344	
	DU cover frame-5 ISA 35x35x5	2*4	0.850			0.14	0.953	
	DU cover frame-6 ISA 35x35x5	2*4	0.780			0.14	0.874	
	DU cover frame-7 ISA 35x35x5	2*4	1.535			0.14	1.720	
	DU cover frame-8 ISA 35x35x5	2*4	0.780			0.14	0.874	

	ISMC for dial guage 100x50	2*4	1.060			0.4	3.393	
	ISA 50x50x6	2*4	0.040			0.2	0.064	
	MS Plates (10m x 2m) 4nos							
	Main Girder Web	2*4	12.000	1.050		2.0	201.601	
	Main girder flange	4*4	12.000	0.200		2.0	76.801	
	Foundation plate	8*4	0.400	0.400		2.0	10.241	
	Plate for foundation bolt 120	24*4	0.120	0.0936		2.0	2.157	
	Splice plate girder-web	4*4	0.950	0.600		2.0	18.240	
	Splice plate girder-flange	2*4	0.600	0.180		2.0	1.728	
	web stiffener at the end	16*4	1.050	0.195		2.0	26.209	
	web stiffener	32*4	0.540	0.094		2.0	12.995	
	web stiffener	16*4	0.925	0.094		2.0	11.130	
	web stiffener plate outer side	40*4	1.050	0.094		2.0	31.585	
	Plate for pulley C1-bracket	4*4	1.600	0.720		2.0	36.864	
	Lock plate for pulley	4*4	0.015	0.050		2.0	0.024	
	Spacer for Pulley Od 200	4*4	0.200	0.157		2.0	1.005	
	Flat (handrail)	2*4	12+1	0.050		2.0	10.400	
	Base plate-plummer block	8*4	0.290	0.140		2.0	2.599	
	Bracket-plummer block	4*4	0.290	0.250		2.0	2.320	
	base plate - plummer block	8*4	0.250	0.120		2.0	1.920	
	base plate for gear box	1*4	0.375	0.300		2.0	0.900	
	Bracket - GB	4*4	0.050	0.050		2.0	0.081	
	cross plate for bracket	2*4	0.270	0.050		2.0	0.217	
	cross plate bracket	1*4	0.350	0.120		2.0	0.336	

	bracket plate for - coupling	1*4	0.350	0.012		2.0	0.034	
	Base plate for - break	2*4	0.050	0.050		2.0	0.041	
	base plate for break	1*4	0.250	0.200		2.0	0.400	
	base plate for - hand operation	1*4	0.045	0.010		2.0	0.004	
	key	1*4	0.140	0.012		2.0	0.014	
	key	2*4	0.050	0.007		2.0	0.006	
	stiffener plate	2*4	0.050	0.050		2.0	0.041	
	bracket for motor	1*4	0.100	0.050		2.0	0.041	
	diaphram plate for rope drum-leg	4*4	0.350	0.460		2.0	5.152	
	lock plate for shaft	4*4	0.280	0.100		2.0	0.897	
	plummer block base plate	2*4	0.060	0.690		2.0	0.663	
	plummer block base plate	2*4	1.540	0.060		2.0	1.479	
	vertical bracket plate	8*4	0.080	0.230		2.0	1.178	
	vertical bracket plate-centre	4*4	0.080	0.150		2.0	0.384	
	stiffner plate for ISMC	10*4	0.180	0.260		2.0	3.744	
	stiffner plate	2*4	0.080	0.290		2.0	0.372	
	stiffner plate plummer block	4*4	0.275	0.080		2.0	0.705	
	base plate plummer block	4*4	0.255	0.080		2.0	0.653	
	spacer od 200 x id 728 thick	4*4	0.200	0.156		2.0	0.999	
	covers of rope drum 2nos/shutter-plate	4*4	0.060	0.035		2.0	0.068	
	sheet side	2*4	2.900	0.480		2.0	22.272	
	sheet top	4*4	1.470	0.680		2.0	31.988	
	sheet side	2*4	0.210	0.310		2.0	1.042	
	flat	4*4	0.995	0.050		2.0	1.592	
	flat	2*4	1.250	0.050		2.0	1.000	

	drive unit cover sheet body side	2*4	1.450	1.130		2.0	26.216	
	side body sheet	1*4	1.130	0.820		2.0	7.413	
	side sheet	1*4	0.830	0.820		2.0	5.445	
	sheet for cover top	1*4	1.500	0.840		2.0	10.080	
	sheet for side window	1*4	0.150	0.150		2.0	0.180	
	plate for side opening	2*4	0.880	0.055		2.0	0.775	
	Shutter size (10m x 2m) 4nos							
	Hand rails of hoist bridge	4	12.000+1			0.12	6.240	
	Hand rail pipe for ladder	2*4	3.500			0.12	3.360	
	MS checkered plate 6mm thick	1*4	12.000	2.600		2.0	249.601	
	M.S rods (10m x 2m) 4nos							
	Rod 1 for hand operation 40mm dia	2	0.550			0.0	0.002	
	Rod 2 for hand operation 40mm dia	2	0.367			0.0	0.001	
	handle for RD cover 16mm dia	4	0.280			0.0	0.001	
	handle for RD cover 16mm dia	4	0.400			0.0	0.001	
	handle for RD cover 16mm dia	4	0.300			0.0	0.001	
	handle for DUcover 16mm dia	4	0.300			0.0	0.001	
						Total Quantity	1206.095 sqm	
						Total Deducted Quantity	0.000 sqm	
						Net Total Quantity	1206.095 sqm	
						Say 1206.095 sqm @ Rs 967.71 / sqm	**Rs 1167150.19**	

Sl No	Description	No	L	B	D	CF	Quantity	Remark
9 APPENDIX F-4 MECHANICAL WORKS-HOISTING UNITS								

1	od238308/2019_2020 Supplying and stacking of 35 Tonne capacity rope drum hoisting unit having 12 m lift at a hoisting speed of about 0.45 m/min(+/-10%) through pulley arrangements with 4 numbers of falls on either side with 24 mm tested galvanized wire rope 6/36 construction, fibre core having breaking capacity 34250 Kg and driven by TEFC squirrel cage induction motor hoist duty type having capacity not less than 7.5 HP and driven through self locking worm reducer and open gear reduction unit including 2 nos. of plummer blocks with bearings for line shaft supported at proper intervals and including cost of electro magnetic thruster brake assembly manual operating systems, electrical accessories, limit switch and other safety equipments as per drawings specifications and statutory requirements etc complete Rate analysis for 35 T capacity rope drum hoisting unit (all MR items rate including GST)								
	4NOS SHUTTERS	4					4.000	
						Total Quantity	4.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	4.000 set	
						Say 4.000 set @ Rs 1074560.18 / set	**Rs 4298240.72**	
2	85.128 Providing Line shaft ,material : MS rolled/ forged steel							
	70mm dia line shaft	2*4	4.200			3.0	100.801	
						Total Quantity	100.801 kg	
						Total Deducted Quantity	0.000 kg	
						Net Total Quantity	100.801 kg	
						Say 100.801 kg @ Rs 128.95 / kg	**Rs 12998.29**	
3	od238310/2019_2020 Cost of supplying and stacking 20mm tested galvanised steel wire rope 6/36 construction, fibre core having breaking capacity 23853Kg tensile designation of 1770 confirming to IS2266-2002							
	20mm dia wire rope	4	80.000				320.000	
						Total Quantity	320.000 metre	
						Total Deducted Quantity	0.000 metre	
						Net Total Quantity	320.000 metre	
						Say 320.000 metre @ Rs 309.77 / metre	**Rs 99126.40**	
4	od238311/2019_2020 Providing DIAL ASSEMBLY							
	4nos shutters	1*4					4.000	
						Total Quantity	4.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	4.000 set	
						Say 4.000 set @ Rs 26965.19 / set	**Rs 107860.76**	

5	85.125 Conveying and erecting in position the already supplied rope drum hoisting units (15T/ 20T/25T/30T) capacity on the hoisting bridge and correcting the alignment as far as possible manually as per the direction of departmental officer at site including cost of all labour, machinery, lead and lift and all incidental and conveyance charges etc complete							
	erection for 15 ton	4					4.000	
						Total Quantity	4.000 no	
						Total Deducted Quantity	0.000 no	
						Net Total Quantity	4.000 no	
						Say 4.000 no @ Rs 56021.99 / no	**Rs 224087.96**	
6	85.135 Conveying and Fixing wire rope already supplied to the new gates and Hoisting unit safely and conducting Trial run							
		4					4.000	
						Total Quantity	4.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	4.000 set	
						Say 4.000 set @ Rs 16981.94 / set	**Rs 67927.76**	
7	od238312/2019_2020 Preparing design and drawing of shutters, embedded parts, hoisting mechanism, bridge etc.. as per IS 4622 and as per standard specifications of all GA, Fabrication and detailed drawings							
	drawings and design	1					1.000	
						Total Quantity	1.000 set	
						Total Deducted Quantity	0.000 set	
						Net Total Quantity	1.000 set	
						Say 1.000 set @ Rs 255530.00 / set	**Rs 255530.00**	

Sl No	Description	No	L	B	D	CF	Quantity	Remark
10 PROVISION FOR GST@12%+1%=13% OF THE ESTIMATED COST								
Lump-Sum Total						**Rs 33341277.00**		
	Sl No	Description	No	L	B	D	CF	Quantity
Remark	**11 PROVISION FOR CONSULTANCY CHARGES @3.5% OF THE ESTIMATED COST**							
Lump-Sum Total						**Rs 8976498.00**		
	Sl No	Description	No	L	B	D	CF	Quantity
Remark	**12 PROVISION FOR GST@18%+1%=19% ON CONSULTANCY CHARGES**							
Lump-Sum Total						**Rs 1705535.00**		
	Sl No	Description	No	L	B	D	CF	Quantity

Remark	**13 PROVISION FOR UNFORESEEN ITEMS & SURVEY INVESTIGATION CHARGES @3% OF ESTIMATED COST**	
Lump-Sum Total		**Rs 7694141.00**
	Provision for GST payments (in %) @	**0.0%**
Amount reserved for GST payments		**0.00**
Total		**308188806.00**
Lumpsum for round off		**11194.00**
TOTAL Rs 308200000.00		
Rounded Total Rs 30,82,00,000		
Rupees Thirty Crore Eighty Two Lakh Only		

(Cost Index Applied for this estimate is 32.04%)