Sqmt)					
74050	60085	13965			
	796778 Sft				
SR. NO.	PARTICULARS	UOM	QNTTY	RATE	AMOUNT
1	Earth Filling	Cum	2226	210	467460
2	Anti Termite	Sqm	6765	180	1217700
3	Upto Plinth level				0
4	M10	Cum	507	6900	3498300
5	Labour Rate for M10			2200	0
6	Upto Plinth level				0
7	M30	Cum	14358	8000	114864000
8	Labour rate for M30			2500	0
9	Above Plinth M30	Cum	26894	9000	242046000
10	Labour rate and % Increase per floor		——	4%	
11	M35	Cum	4455	9150	40763250
12	M45	Cum	7407	9295	68848065
13	M50	Cum	7164	9440	67628160
14	M60	Cum	2927	9715	28435805
15	M70	Cum	10747	10100	108544700
16	Steel 550 D Above Plinth Level	MT	1800	71000	127800000
17	Labour Rate as above and % increase per floor			11000 6%	
18	Steel 550 D upto Plinth Level	MT	3815	70000	267050000
19	Labour Rate as above and % increase per floor			9500 6%	
20	Structural Steel	MT	200	120000	24000000
21	Labour rate as above			28	
22	Coupler				
23	16 Dia	Nos	24000	39	936000
24	20 Dia	Nos	19000	51	969000
25	25 Dia	Nos	17000	90	1530000
26	32 Dia	Nos	6000	142	852000
27	Shuttering Upto Plinth Level	Sqmt	57569	350	20149150
28	Fdn,Footings,bases of Columns,etc for mass concrete	Sqmt	2010	400	804000
29	Walls of any thickness	Sqmt	1714	550	942700
30	Suspended floors ,roofs,landings,balconies	Sqmt	18826	600	11295600
31	Lintels, beams,Plinth beams,girders	Sqmt	19197	600	11518200

	plateform				25713050
37	Shear wall columns pillars ,post piers	Sqmt	57384	525	30126600
38	lintels Beams cantilevers etc	Sqmt	28700	550	15785000
39	Stair case etc	Sqmt	7272	550	3999600
40	Non Structural wall	Sqmt	34146	525	17926650
41	Extra for additional height over a height of 3.60 meter or part there of	Sqmt	74050	270	19993500
42	Water proofing toilet etc (Polyurea with thermal insulation)	Sqmt	1575	5500	8662500
43	Water proofing lanscape decks (Silcor 560 LS)	Sqmt	4650	2200	10230000
44	In basement Horizontal surface	Sqmt	6015	2000	12030000
45	D wall Flexi PU 660 water proofing	Sqmt	5250	2000	10500000
	Total				1618958940
	Add GST @ 18%				291412609.2
	Total				1910371549.20

Rate Rs per Sft	2031.88	2031.88

	basement 2	6015	1425	4590	
	basement 1	6150	1425	4725	
	ground floor	6075	1425	4650	
	court	370	370		
	business centre	565	565		
	club	1365	1365		
	1st floor	1565	1565		
	2nd floor	1500	1500		
	for 29 floors	43500	43500		
	refuse floor	1500	1500		
	33rd floor lower penthouse	1585	1585		
	34th floor upper penthouse	1245	1245		
	terrace	1500	1500		
	upper terrace	1015	1015		
	Mumty/oht	100	100		
		74050	60085	13965	
1	**SITE WORK**				
1.1	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means over areas (exeeding 30cm in depth, 1.5 mtr in width as well as 10 sqm on plan) including retaining of 10000 cum of excavated earth and rest of the excaved earth shall be getting out / disposal as directed by Engineer-in-charge.Accordingly the rate shall be quote by the vendor				
a	All kind of soil.	cum	97582	400.00	3,90,32,962.50
1.2	Extra for every additional lift of 1.5 m or part there of in excavation/ banking excavated or staking materials etc.				
a	1.5 m to 3.0 m	cum	9225	450.00	41,51,250.00
b	3.0 m to 4.5 m	cum	9225	500.00	46,12,500.00
c	4.5 m to 6.0 m	cum	9225	550.00	50,73,750.00
d	6.0 m to 7.5 m	cum	9225	600.00	55,35,000.00
e	7.5 m to 9.0 m	cum	9225	650.00	59,96,250.00
f	9.0 m to 10.5 m	cum	9225	700.00	64,57,500.00
g	10.5 m to 12.0 m	cum	9225	750.00	69,18,750.00
h	12.0 m to 13.5 m	cum	9225	800.00	73,80,000.00
i	13.5 m to 15.0 m	cum	7189	850.00	61,10,437.50
j	15.0 m to 16.5 m	cum	2436	900.00	21,93,750.00
k	15.0 m to 16.5 m	cum	284	950.00	2,70,156.25
1.3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc in layers not exceeding 20 cm in depth.				

	complete as per specification (plinth area of the building at ground floor only shall measured for payment) - .Chlorpyriphos / Lindane emulsifiable concentrate of 20% with 1% concentration.(Plinth area will be measured).	sqm	6765	250.00	16,91,250.00
					-
	TOTAL				9,62,02,795.80
2	**CONCRETE WORK**				
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
i)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	cum	5500	7000.00	-
ii)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	cum	5800	7500.00	-
iii)	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size). MS	cum	6300	8000.00	-
iv)	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size). M 25	cum	700	8500.00	-
					-
2.2	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and 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 plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, 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 : (1) Excess/less cement used than specified in this item is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-				-
i)	All works upto plinth level:			6800	-
ii)	M-15 grade plain cement concrete	cum		7500.00	-
iii)	M-10 grade plain cement concrete	cum	507	7000.00	35,51,625.00
					-
	T				35,51,625.00
					-
3	**RCC WORK**				-
					-
3.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost				

	cement concrete work, including pumping of RMC concrete from transit mixer 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 workablity without impairing strength and durablity as per direction of Engineer-in-charge				-
	Note :- 1) Fly ash confirming to grade I of IS 3812)Part-1) only be used as part replacement of OPC as per IS: 456. Uniform blending with cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456-2000 in the items of and RMC.				-
					-
3.2.1	All works upto plinth level	cum	14358	8000.00	11,48,60,518.35
					-
3.2.2	All works above plinth level.	cum	26894	8250.00	22,18,75,451.53
					-
3.2.3	Extra for RCC/ BMC/ RMC work above floor Vth level for each 4 floors or part thereof.				-
					-
3.2.4	Extra for providing richer mixes for all floor levels				-
					-
3.2.4.1	Proving M35 grade concrete instead of M30 grade concrete BMC / RMC .	cum	4455	8500.00	3,78,63,675.00
					-
3.2.4.2	Proving M40 grade concrete instead of M30 grade concrete BMC / RMC .	cum		8750.00	-
					-
3.2.4.3	Proving M45 grade concrete instead of M30 grade concrete BMC / RMC .	cum	7407	9000.00	6,66,62,509.14
					-
3.2.4.4	Proving M50 grade concrete instead of M30 grade concrete BMC / RMC .	cum	7164	9250.00	6,62,68,961.46
					-
3.2.4.5	Proving M60 grade concrete instead of M30 grade concrete BMC / RMC .	cum	2927	9500.00	2,78,06,728.95
					-
3.2.4.6	Proving M70 grade concrete instead of M30 grade concrete BMC / RMC .	cum	10747	9750.00	10,47,84,145.14
					-
3.3	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				-
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	1767193	100.00	17,67,19,289.69
					-
3.4	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete above plinth level.				-
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	3815404	110.00	41,96,94,442.96

	operators, provision of Bar Caps to protect the threads on rebars and related operations and arrangements as required to complete the work (Only couplers shall be supplied by Owner free of cost, threading & all necessary arrangement for fixing in position shall be done by the Contractor at his own cost)			To be Loaded	
i)	Coupler for 16mm dia reinforced bar	nos	24000	150.00	36,00,000.00
ii)	Coupler for 20mm dia reinforced bar	nos	19000	175.00	33,25,000.00
iii)	Coupler for 25mm dia reinforced bar	nos	17000	210.00	35,70,000.00
iv)	Coupler for 32mm dia reinforced bar	nos	6000	320.00	19,20,000.00
					-
	TOTAL				24,89,50,722.22
					-
4	**FORM WORK**				-
					-
4.1	Centering and shuttering including strutting, propping etc and removal of forms of all heights.				-
4.1.1	Foundations, footings, bases of columns, etc for mass concrete.	sqm	2010	800.00	16,07,997.60
4.1.2	Walls (of any thickness) including attached plasters, buttresses, plinth and string courses etc.	sqm	1714	950.00	16,27,920.00
4.1.3	Suspended floors, roofs, landings, balconies and access platforms.	sqm	18826	1000.00	1,88,26,000.00
4.1.4	Lintels, Beams, plinth beams , girders , bressumers, cantilevers.	sqm	19197	1000.00	1,91,97,350.00
4.1.5	Shear walls, Columns, Piflars, Piers, Abutments, Posts & Struts	sqm	11927	1050.00	1,25,22,839.96
4.1.6	Stair (excluding landing) except spiral stair.	sqm	3095	1100.00	34,04,170.00
4.1.7	oht	sqm	800	1100.00	8,80,000.00
					-
					-
4.2	MIVAN/ EQUIVALENT SHUTTERING:				-
	Designing Providing and fixing approved Mivan / Equivalent shuttering (formwork) system in position and removing the same after the specified periods for all types of shuttering for reinforced cement concrete works as specified including all chamfers, splays, keys, wedges, brackets, all materials, tools, plant and labour complete. The work shall be carried out as per Manufacturers drawings, specficiations and as directed by Engineer- in-charge.				-
4.2.1	Suspended floors, roofs, balconies, landing and access platform.	sqm	46751	850.00	3,97,37,925.00
4.2.2	Shear wall, Columns , pillars , posts,piers, abutment , struts.	sqm	57384	900.00	5,16,45,750.66
4.2.3	Lintels, Beams, plinth beams , girders , bressumers , cillscantilevers.	sqm	28700	900.00	2,58,29,651.25
4.2.4	Stair (excluding landing) except spiral stair.	sqm	7272	1050.00	76,35,915.00
4.2.5	Non structural wall				

					-
	TOTAL				23,66,61,584.67
					-
5.	**WATERPROOFING**				-
					-
5.1	Providing and applying water proofing treatment to toilets, pantries, balconies and other wet areas base and walls with three coats of Tapecrete each mixed with grey cement in proportion 1 : 2 (1 tapecrete : 2 grey cement) over a primer coat as per manufacture specification. All joints, corners, junction of pipes &masonary to be sealed with epoxy putty. The water proofing is to be laid on a smooth plaster surface. The treatment is to be done on the base, underneath and behind all pipes and taken up on vertical walls upto a height of minimum 150 mm above the finished floor level . 12 to 15 mm cement plaster to be done after the treatment etc. all complete as per manufacture specification &recommendation. (Rate to include all plaster work required for the complete treatment)	sqm		3500	-
					-
5.2	Terrace waterproofing				-
	Polyurea with thermal insulation	sqm	1575	2800	44,10,000.00
					-
5.3	**WATER PROOFING OF LANDSCAPE DECKS WITH SINGLE COMPONENT LIQUID POLYURETHANE WATERPROOFING MEMBRANE (Silcor 560 LS / Silcor 560)**				-
	Supplying and Applying **Silcor 560 LS / Silcor 560** (manufactured by GCP Applied Technologies and applied by GCP aprroved applicator) @ 2.1 kg /sqm , A high performance, low odour, one-part, fastcuring, high solids, polyurethane elastomer waterproof membrane over uniform surface (smooth and free from dust, laitance, loose matter, all curing compounds, form release agents, oil or other contaminants) of Terrace slab cured for 28 days and rendered 7 days. All abrupt irregularities, voids & honeycombed areas on terrace slab shall be made good before membrane application. Inspect primed surfaces to for pin holes. Reprime if necessary to seal remaining pin holes. Roughen PVC or stainless steel before priming with Silcor Primer BS. Apply Silcor 560 to a DFT (Dry Film Thickness) of 1.2 mm .Apply in one or two coats by spray/roller or brush application. Silcor 560 is a pure polyurethane elastomer. It does not contain bitumen or tar and will not bleed or stain.Silcor 560 should have following minimum properties:	sqm	4650	3000	1,39,50,000.00

	manufacturer instructions till the level of raft slab.	sqm	6015	2000	1,20,30,000.00
					-
5.5	D Wall Waterproofing				-
					-
1	Drilling & Packer fixing at D'wall Joints				-
	Providing & Fixing 'NRV Packers' including drilling of 14 mm dia holes of required depth, fixing packers and sealing the leak path surrounding packers using rapid setting mortar				-
					-
2	PU Injection at D'wall Joints				-
	Providing and Injecting ADCOS, Belgium manufactured single component, closed cell, low-viscosity, hydro-active, hydrophilic polyurethane injection grout Purinject 1c Hydrofoam with CE Marking using high pressure electric operated piston injection Pump which includes consumables like thinner, oil, connector, adaptors, etc; removing packers after injection, cleaning region and making the surface good etc complete.				-
					-
3	Repair of Anchor points by Cement grouting and				-
	Cleaning of Anchor holes manualyy and by water jet, injction of cement slurry into the hole admixed with non-shrinq compound Cebex 100 of Fosroc by dosage of 200 gms per bag of cement followed by filling the rets of the cavilty by high strength repair mortar GP2 manufactured by Fosroc.				-
					-
4	Waterproofing Layer of Techno Flexi PU 660: Pure Polyurethane based Liquid Applid Elastomeric Seamless Membrane on D-Wall				-

	the PU coating, a primer coat of Techno Flexi PU Primer to be applied @ 150-200 grams per sqm by brush or roller.Techno Flexi PU 660 shall be applied in 2 coats, total consumption of app. 2 kg/sqm. Techno Flexi PU 660 memebrane cures by reaction with ground and air moisture and provides excellent mechanical, chemical, thermal and UV resistance properties having >800% elongation & tensile strength 2N/mm ² as per ASTM D 412, up to 2mm crack bridging capacity as per ASTM C836, pull off strength to concrete more than 2 N/mm2 as per ASTM D4541, Shore A hardness 60 as per ASTM D2240 & soild content 90+3% as per IS 101. Vertical application of Techno Flexi PU 660 shall be done in 3 coats. Sprinkle dry, clean, angular silica sand on final coat of all horizontal and vertical application to provide anchorage for plaster application.	sqm	5250	3250	1,70,62,500.00
					-
	OR OTHER OPTION				-
					-
4	Waterproofing Layer of self addisive SBS				-
	Providing and Applying wetbonded a 1.5 mm thick double-sided modified bitumen Self adhesive water proofing membrane having release liner on both side for wet-application on the retaining wall. The procedure involves the concrete to be saturated by water (use water hose). Any protrusions need to be removed and the concrete surface needs to be cleaned. A bonding slurry (withapproximate of 2–3 kg/m2) is applied to the substrate. Then the membrane is unrolled and pressed into the freshslurry after removal of the release liner The long edges of the membrane are overlapped by min. 80 mm and firmly pressed together usirg a roller. The short edges of the membrane are overlapped inthe same way. The overlaps need to be staggered.				
	TOTAL				4,74,[illegible]00.00
8	**PILE WORK**				

	removal of slime and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete or by manual augar, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note : Cement content is not less than 400 kg/cum				
					-
6.1.1	750 mm	rmt	9510	13000.00	12,36,30,000.00
					-
6.2	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				-
i	Thermo mechanically Treated bars of grade Fe 500D or more.	kg	482915	100.00	4,82,91,482.81
					-
	TOTAL				17,19,21[illegible]2.81
					-
7	**STRUCTURAL STEEL WORK**				-
					-
	Supplying, fabricating, assembling, hoisting /erecting and fixing in position at all heights and with all leads, structural steel works of MS rolled sections/Plate as per structural drawings and as per detailed specifications (for materials & workmanship) in the situations described herein after complete rate shall including primer and 2 or more coats of paint by spray gun as per detailed specifications and manufacturer's recommencations. The welding elctrode to be used shall be E-7018 (radiographic quality) or equivalent as per IS classification. The grade of steel shall be Yst 345.The rate to include providing and applying intumescent fire retardant paint (Two hour rating) of approved quality on steel work as per manufacturer's specification including all materials, labour complete as per direction of Engineer-in-charge (Paint shall be in accordance with AS 1530/4 and BS 476 part 8 ASTM-E : 119 and anti - corrosive).	MT	200	150000	3,00,00,000.00
					-
	TOTAL				3,00,00,000.00
					-
8	**DIAPHRAGM WALL**				-
					-

	approved design. Diaphragm wall shall have cut outs as per structural drawings and rate shall include for insert plates for connection of basements slab by the Civil Contractor, as per details provided in the Structure crawings. Rate shall include slope preparation and placing of sand bags in the sloping portion. The quoted rate shall be inclusive of design review / vetting (by Structural Consultant appointed by Client & IIT appointed by Contractor;, mobilisation and demobilisation of equipments, boring, rainforcement steel, concreting with RMC; HT strands/ Anchors including post tensioning, Guide wall and conducting test as required etc. complete in all	sqm	5250		-
					-
	TOTAL				
					1,83,39,40,710.50

1	Scope : Our offer is for Piling,sub structure and super structure work limited to civil structural work as per Bill of Quantity. Our rates are inclusive of all materials in our scope.
2	Space for all the activities including Labour huitment, steel yard, farmwork yard, site office, Store, & Batching Plant etc. will be provided by client free of cost at site.
3	Electricity : It will be supplied by client at Single Point on free issue basiss.Necessary distribution is in our scope.
4	Water: It will be supplied by client at Single Point on free issue basiss.Necessary distribution is in our scope.
5	Tax : Our rates are inclusive of all taxes except GST and labour cess.
6	Payment terms : 75 % of monthly RA bill will be paid within 10 days of submission before checking and balance will be paid after checking within 30 days of submission.
7	Mobilization Advance : Mobilization advance@10% +GST will be paid along with LOI against corporate guarentee.
8	Secured Advance Payment against procurement of Structural Steel & reinforcement@ 75% of Purchase value within 7 days against delivery at site.
9	Retention Amount : 3% of contract value.
10	Release of retention: 50% on virtual completion and balance 50% after DLP period.
11	DLP consider 12 months from the date of virtual completion.
12	Reinforcement : laps as per actual, chairs, Spacer bar will be paid in measurement as per actual.
13	Variation of individual and over all quantity (+/- 15%), beyond that rate will be revised.
14	Mode of measurement : As per IS 1200
15	Escalation: Labour escalation applicable after 1 year from the date of LOI.
16	We haven't consider CAR policy.
17	Project duration consider 36 months.
18	Our offer has been prepared based on the following basic rate excluding GST on the materials. Base rate variation (+/-) will be adjusted.
	Reinforcement Steel @ 55000/- per MT
	Structural steel @ 60000/- per MT
	PCC M7.5 @ 4250/- per cum
	PCC M10 @ 4400/- per cum
	PCC M15 @ 4500/- per cum
	PCC M20 @ 4800/- per cum
	RCC M30 @ 5300/- per cum
	RCC M35 @ 5450/- per cum
	RCC M40 @ 5750/- per cum
	RCC M40 @ 6125/- per cum
	RCC M50 @ 6500/- per cum
	RCC M60 @ 7400/- per cum
	RCC M70 @ 8200/- per cum
	Cement @ 250/- per bag
	Silver Sand @ 30/- per cft

PROJECT :-PALOMA THE GRANDEUR -PROPOSED 38+G+34 floor with Total height 160 Mtr
Scope of Works : SCHEDULE OF BOQ - PILING , SUB & SUPER STRUCTURE WORK

S. No.	Description of Items	Unit	Qty	Rate	Amount
1.0	PILING WORK				
1.1	Mobilisation of work site with all necessary plants, equipments, piling rigs, necessary personnel and erecting them etc. complete and on completion of piling work demobilising site with all the plants, equipments, piling rigs, necessary personnel brought to site including cleaning and reinstating site to original condition acceptable to the PM.	Lum osu m	1	6,50,000	6,50,000
1.2	Providing and constructing cast in situ bored Piles using rotary drilling rigs. Scope includes drilling through all types of strata up to founding level accordance with the Structural drawing, including setting out cardinal points, boring in overburden through all stratas including soft rock, dewatering including socketing in rock, placing and withdrawal of steel casing upto hon collapsible strata or as instructed wherever required, disposal of bored material outside the site at approved location by local authority as per their rules & regulation, irrespective of lead as directed, lowering the reinforcement cage, welding of new bars of specified dia with stitch weld and/or lap weld as per specification. (Working platform for piling work 3.0m1 below Basement 03)				
	NOTE: THE CUT OFF LEVEL OF PILES IS (-) 7700mm w.r.t FFL) IN GENERAL AREA & (-)9800 w.r.t FFL) IN LIFT AREA.				
	i) 750mm dia. Pile (300 MT)	Rmt	9,856	3,640	3,58,75,840
1.4	Providing, machine mixing and laying designed mix / ready mix M35 grade reinforced cement concrete (RCC), using 20mm nominal size well-graded approved quality aggregate and sand as per approved design mix as per IS code and with minimum cement content as per IS or as specified by Structural consultant, whichever is more; maximum water cement ratio 0.42 including using approved admixtures, vibrating / compacting, curing, scaffolding, cleaning, preparing surfaces, junctions, hacking closely surfaces to be plastered etc. complete but excluding the cost of Formwork and reinforcement to the entire satisfaction of the PM at all depths, heights, lifts and leads. (Concreting of piles to be carried out for 600mm above the cutoff level which will not be paid, being contaminated concrete)				
	i) 750mm dia. Pile (300 MT)	Rmt	9,856	3,388	3,33,92,128
1.5	Empty Boring measured from the working platform level to the cut-off levels of the piles, further it shall be filled with approved dry sand. (Working platform level is considered as -14.75m level)	Rmt	1,199	4,340	48,99,860

S. No.	Description of Items	Unit	Qty	Rate	Amount
1.6	Providing and fixing steel reinforcement for RCC, including transporting, de-coiling, straightening, cutting, bending, and placing in position at all levels and binding with approved quality G.I. annealed binding wire of 18 gauge for end bearing cast-in-situ piles conforming to IS 2911, Part I with correct size PVC cover blocks or approved concrete cover blocks of same grade as of concrete. The rate shall include cost of binding wire, chairs, spacers, pins, which will not be measured separately for payment. Quantity of steel as per bar bending schedule as approved by the PM and with authorized overlaps only shall be measured and paid for. Further include where required carryout dewatering, provide required labour and machines / equipments / tools / tackles for handling, shifting, bending, binding, etc. all complete to the satisfaction of the PM at all depths & loads.				
	High yield strength deformed bars conforming to IS 1786 - Fe 500 grade	KG	297,309	86	2,55,65,574
1.7	Carry out load testing of cast-in-situ reinforced cement concrete bored piles using Pile Driving Analyzer equipment conforming to ASTM D4945 - 1989 through authorized licenced agency to carry out test by the manufacturer of machine and as approved by Structural Consultant. Equipment shall be able to record force and velocity by using strain and acceleration sensor. Test load shall be designed load. The hammer weight shall be minimum 1% of test load as recommended.				
	Test report shall include				
	Ø Force velocity curve				
	Ø Pile capacity				
	Ø Shaft friction				
	Ø End bearing				
	Ø Stimulated static load test curve				
	Ø Net and total pile displacement				
	Ø Pile integrity				
	Test shall be carried out minimum 14 days after installation of pile. Report shall be submitted within 7 days of testing.				
	II 750mm dia with load carrying capacity 300 MT.	Nos.	9	4,29,000	38,61,000
1.8	Carry out High strain dynamic load testing of cast-in-situ reinforced cement concrete bored piles using Pile Driving Analyzer equipment conforming to ASTM D4945 - 1989 through authorized licenced agency to carry out test by the manufacturer of machine and as approved by Structural Consultant. Equipment shall be able to record force and velocity by using strain and acceleration sensor. Test load shall be 1.5 x designed load. The hammer weight shall be minimum 1% of test load as recommended.				
	Test report shall include				
	Ø Force velocity curve				
	Ø Pile capacity				
	Ø Shaft Friction				
	Ø End bearing				
	Ø Stimulated static load test curve				
	Ø Net and total pile displacement				

S. No.	Description of Items	Unit	Qty	Rate	Amount
	Ø Pile integrity			-	-
	Test shall be carried out minimum 14 days after installation of pile. Report shall be submitted within 7 days of testing.			-	-
	i) 750mm dia with load carrying capacity 300 MT.	Nos.	1	6,43,500	6,43,500
1.9	Providing, conducting and submitted documented report on RCC bored pile integrity test using pile integrity tester on completion of required setting of piles, preparation of heads, mobilising and demobilising of equipments all complete. Report should include graphical wave form, interpretation of results, cross sectional or material changes if any in length of pile, concrete quantity etc. all complete as forming to ASTMD5882 and to satisfaction of the PM.			-	-
	i) 750mm dia with load carrying capacity 300 MT.	Nos.	317	1,170	3,70,890
1.10	Chipping and dressing of the R.C.C. piles upto length of 600mm including cleaning reinforcement and removal of dismantled materials upto a distance of 50 meter beyond the building area etc. for providing pile caps. Spec: complete as approved by PM.			-	-
	i) 750mm dia with load carrying capacity 300 MT.	Nos.	317	3,380	10,71,460
				-	-
	SUB TOTAL OF PILING WORK			-	**10,83,33,252**
1.3	Filling available excavated earth (excluding rock) in trenches,plinth, sides of foundation etc in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, of all leads and all lifts.	cum	2,226	582	2,95,764
				-	-
1.4	Providing and injecting chemical emulsion for PRE-CONSTRUCTION anti-termite treatment & creating a continuous chemical barrier under & around the columns pits, walls, trenches, basement excavation, top surface of plinth filling, junction of wall & floor, along the external perimeter of building, expansion joint, over the top surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per specification (plinth area of the building at ground floor only shall measured for payment) - Chloropyriphos / Lindane emulsifiable concentrate of 20% with 1% concentration. (Plinth area will be measured).	sqm	6,765	54	10,41,810
	TOTAL			-	**23,37,574**
				-	-
2	CONCRETE WORK			-	-
				-	-
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.			-	-
i)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	cum		7,326	-
ii)	1:3:6 (1 cement :3 coarse sand : 6 graded stone aggregate 40mm nominal size).	cum		7,559	-
iii)	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).	cum		7,715	-
iv)	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	cum		7,715	-
				-	-

S. No.	Description of Items	Unit	Qty	Rate	Amount
2.2	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and manufacrured in fully automatic batching plant and transported to site of work in transit mixer for all loads, having continuous agitated mixer, manufactured as per mix design of specified grade for plain cement concrete work, inclyding pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, 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 : (1) Excess/less cement used than specified in this item is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 - 2000 in the items of RMC and RMC,Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering.			-	-
i	All works upto plinth level:			-	-
ii	M-15 grade plain cement concrete	cum		7,715	-
iii	M-10 grade plain cement concrete	cum	507	7,559	38,35,248
				-	-
	TOTAL			-	**38,35,248**
				-	-
3	RCC WORK			-	-
				-	-
3.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost centering, shuttering, finishing and reinforcement as per direction of Engineer-in-charge	cum		-	-
				-	-
3.2	Providing and laying in position ready mixed M30 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix, manufactured in fully automatic batching plant and tranported to site of work in transit mixers for all leads, having contineous agitated mixer, manufactured as per mix design of specified grade of reinforced cement concrete work, including pumping of RMC concrete from transit mixer to site of laying out 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 :- (1) Fly ash confirming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS: 456. Uniform blending with cement to be ensured in accordance with clauses 5.2 and 5.2.1 of IS:456-2000 in the items of and RMC.			-	-
				-	-
3.2.1	All works upto plinth level	cum	14,358	8,956	12,85,86,350
				-	-
3.2.2	All works above plinth level.	cum	26,894	9,041	24,31,48,601
				-	-
3.2.3	Extra for RCC/ RMC/ RMC work above floor V-h level for each 4 floors or part thereof.			-	-
				-	-
3.2.4	Extra for providing richer mixes for all floor levels			-	-

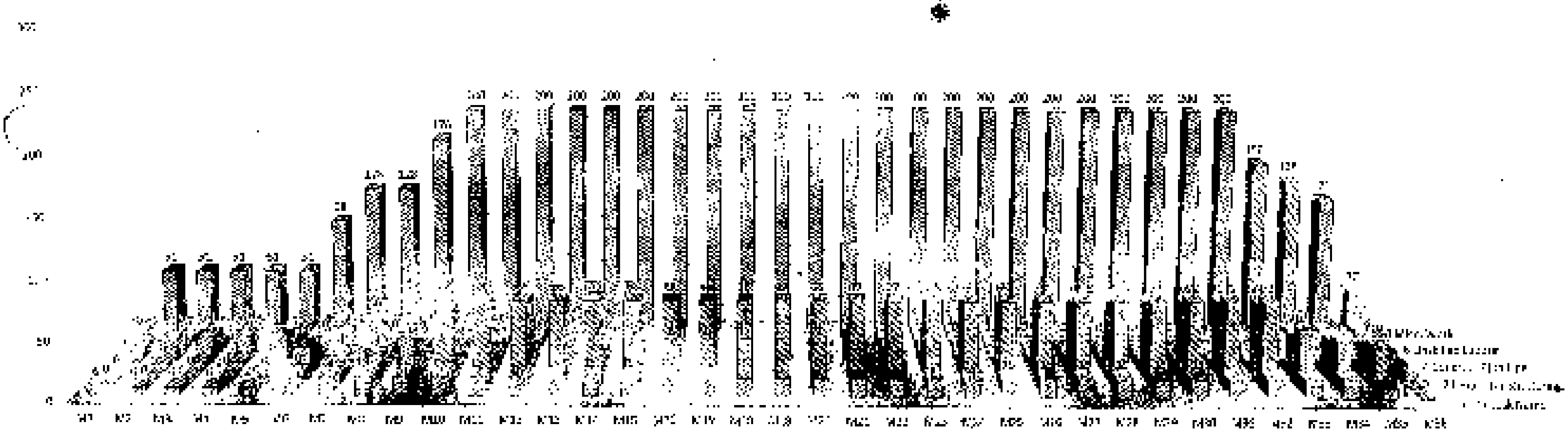
S. No.	Description of Items	Unit	Qty	Rate	Amount
				-	-
3.2.4.1	Proving M35 grade concrete instead of M30 grade concrete BMC / RMC .	cum	4,455	233	10,37,910
				-	-
3.2.4.2	Proving M40 grade concrete instead of M30 grade concrete BMC / RMC .	cum		700	-
				-	-
3.2.4.3	Proving M45 grade concrete instead of M30 grade concrete BMC / RMC .	cum	7,407	1,283	95,03,111
				-	-
3.2.4.4	Proving M50 grade concrete instead of M30 grade concrete BMC / RMC .	cum	7,164	1,913	1,37,05,138
				-	-
3.2.4.5	Proving M60 grade concrete instead of M30 grade concrete BMC / RMC .	cum	2,927	3,312	96,94,304
				-	-
3.2.4.6	Proving M70 grade concrete instead of M30 grade concrete BMC / RMC .	cum	10,747	4,557	4,89,74,497
				-	
3.3	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete upto plinth level.			-	-
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	17,67,193	89	15,72,80,169
				-	-
3.4	Steel reinforcement work for RCC including straightening, cutting, bending, placing in position and binding all complete above plinth level.			-	-
i)	Thermo mechanically treated bars of grade Fe 550D or more.	kg	38,15,404	92	35,10,17,170
				-	-
3.5	Installing/ fixing in position Threaded Tension compression Mechanical Couplers for rebars as per BS 8110, having Bar Break Properties for 100% Tension and compression joints as per Manufacturers recommendations and as per the direction of the Project Manager. The Item includes all operations and arrangements such as threading with manufacturers machines and operators, provision of Bar Caps to protect the threads on rebars and related operations and arrangements as required to complete the work (Only couplers shall be supplied by Owner free of cost, threading & all necessary arrangement for fixing in position shall be done by the Contractor at his own cost)			-	-
ii)	Coupler for 16mm dia reinforced bar	nos	24,000	106	25,44,000
iii)	Coupler for 20mm dia reinforced bar	nos	19,000	156	29,64,000
iii)	Coupler for 25mm dia reinforced bar	nos	17,000	208	35,36,000
iv)	Coupler for 32mm dia reinforced bar	nos	6,000	273	16,38,000
				-	-
	TOTAL			-	**97,36,29,249**
				-	-
4	FORM WORK			-	-
				-	-
4.1	Centering and shuttering including strutting, propping etc and removal of forms of all heights.			-	-
4.1.1	Foundations, footings, bases of columns, etc for mass concrete.	sqm	2,010	835	16,78,347
4.1.2	Walls (of any thickness) including attached pilasters, buttresses, plinth and string courses etc.	sqm	1,714	858	14,70,269
4.1.3	Suspended floors, roofs, landings, balconies and access platforms.	sqm	8,826	936	76,21,136
4.1.4	Lintels, Beams, plinth beams , girders , bressumers, cantilevers.	sqm	9,197	936	79,68,720
4.1.5	Shear walls, Columns, Pillars, Piers, Abutments, Posts & Struts	sqm	13,927	935	1,11,51,291
4.1.6	Stair (excluding landing) except spiral stair.	sqm	3,095	935	28,93,545

S. No.	Description of Items	Unit	Qty	Rate	Amount
4.1.7	plint	sqm	800	1,044	8,35,200
				-	-
				-	-
4.2	MIVAN/ EQUIVALENT SHUTTERING:			-	-
	Designing Providing and fixing approved Mivan / Equivalent shuttering (formwork) system in position and removing the same after the specified periods for all types of shuttering for reinforced cement concrete works as specified including all chamfers, splays, keys, wedges, brackets, all materials, tools, plant and labour complete. The work shall be carried out as per Manufacturers drawings, specifications and as directed by Engineer-in-charge.			-	-
4.2.1	Suspended floors, roofs, balconies, landing and access platform.	sqm	46,751	920	4,30,10,460
4.2.2	Shear wall, Columns , pillars , posts,piers, abutment , shafts.	sqm	57,384	920	5,27,93,434
4.2.3	Lintels, Beams, plinth beams , girders , bressumers , cllscantilevers.	sqm	28,700	920	2,64,03,644
4.2.4	Stair (excluding landing) except spiral stair.	sqm	7,272	920	66,90,516
4.2.5	Non structural wall	sqm	34,146	920	3,14,13,978
				-	-
4.2	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.50 meter for every additional height of 1 meter or part thereof. (Plan area to be measured).			-	-
	Suspended floors, roofs, landings, beams and balconies (Plan area to be measured).	sqm	74,050	139	1,02,92,950
				-	-
	TOTAL			-	**22,42,23,486**
				-	-
5	WATERPROOFING			-	-
				-	-
5.1	Providing and applying water proofing treatment to toilets, pantries, balconies and other wet areas base and walls with three coats of Tapecrete accn mixed with grey cement, in proportion 1 : 2 (1 tapecrete : 2 grey cement) over a primer coat as per manufacture specfiection. All joints, corners, junction of pipes &masonary to be sealed with epoxy putty. The water proofing is to be laid on a smooth plaster surface. The treatment is to be done on the base, underneath and behind all pipes and taken up on vertical walls upto a height of minimum 150 mm above the finished floor level . 12 to 15 mm cement plaster to be done after the treatment etc. all complete as per manufacture specification &recommendation. (Rate to include all plaster work required for the complete treatment)	sqm		-	-
				-	-
5.2	Terrace waterproofing			-	-
	Polyurea with thermal Insulation	sqm	1,575	3,203	50,44,725
				-	-
5.3	WATER PROOFING OF LANDSCAPE DECKS WITH SINGLE COMPONENT LIQUID POLYURETHANE WATERPROOFING MEMBRANE (Silcor 560 LS / Silcor 560)			-	-

S. No.	Description of Items	Unit	Qty	Rate	Amount
	Supplying and Applying Sikor 560 LS / Sikor 560 (manufactured by GCP Applied Technologies and applied by GCP approved applicator) @ 2.1 kg /sqm , A high performance, low odour, one-part, fastcuring, high solids, polyurethane elastomer waterproof membrane over uniform surface (smooth and free from dust, laitance, loose matter, oil curing compounds, form release agents, oil or other contaminants) of Terrace slab cured for 28 days and rendered 7 days. All abrupt irregularities, voids & honeycombed areas on terrace slab shall be made good before membrane application. Inspect primed surfaces to for pin holes. Reprime if necessary to seal remaining pin holes. Roughen PVC or stainless steel before priming with Sikor Primer BS. Apply Sikor 560 to a DFT (Dry Film Thickness) of 1.2 mm Apply in one or two coats by spray/roller or brush application. Sikor 560 is a pure polyurethane elastomer. It does not contain bitumen or tar and will not bleed or stain.Sikor 560 should have following minimum properties: i) Solid % Vol: (91 ± 3) ii) Tensile Strength > 2.0 MPa (ASTM D412) iii) Elongation > 550% (ASTM D 412) iv) Shore A Hardness - 60 ± 5 (ASTM D2240) v) Chemical Resistance - Excellent (ASTM C543)	sqm	4,650	2,291	1,06,53,150
				-	-
5.4	In basement horizontal surface			-	-
	Fully Bonded HDPE membrane type water proofing is to be carried out in raft /s in foundation work. Pre-applied fully bonded HDPE membrane shall be installed with selvedge laps, and end laps executed with supplier instructions. Pre-applied fully bonded HDPE membrane shall be laid over the entire area and returned on to the diaphragm/retaining wall & terminated as per manufacturer instructions till the level of raft slab.	sqm	6,015	1,201	72,24,015
				-	-
5.5	D Wall Waterproofing			-	-
				-	-
1	Drilling & Packer fixing at D'wall Joints			-	-
	Providing & fixing "NRV Packers" including drilling of 14 mm dia holes of required depth, fixing packers and sealing the leak path surrounding packers using rapid setting mortar			-	-
				-	-
2	PU Injection at D'wall Joints			-	-
	Providing and Injecting ARDOS, Belgium manufactured single component closed cell, low-viscosity, hydro-active, hydrophilic polyurethane injection grout Purinject 1c Hycrofoam with CE Marking using high pressure electric operated piston Injection Pump which includes consumables like thinner, oil, connector, adaptors, etc removing packers after injection, cleaning region and making the surface good etc complete.			-	-
				-	-
3	Repair of Anchor points by Cement grouting and GP2			-	-
	Cleaning of Anchor holes manualyy and by water jet, injection of cement slurry into the hole admixed with non-shrink compound Cebex 100 of Fosroc by dosage of 200 gms per bag of cement followed by filling the rest of the cavity by High strength repair mortar GP2 manufactured by Fosroc.			-	-
				-	-

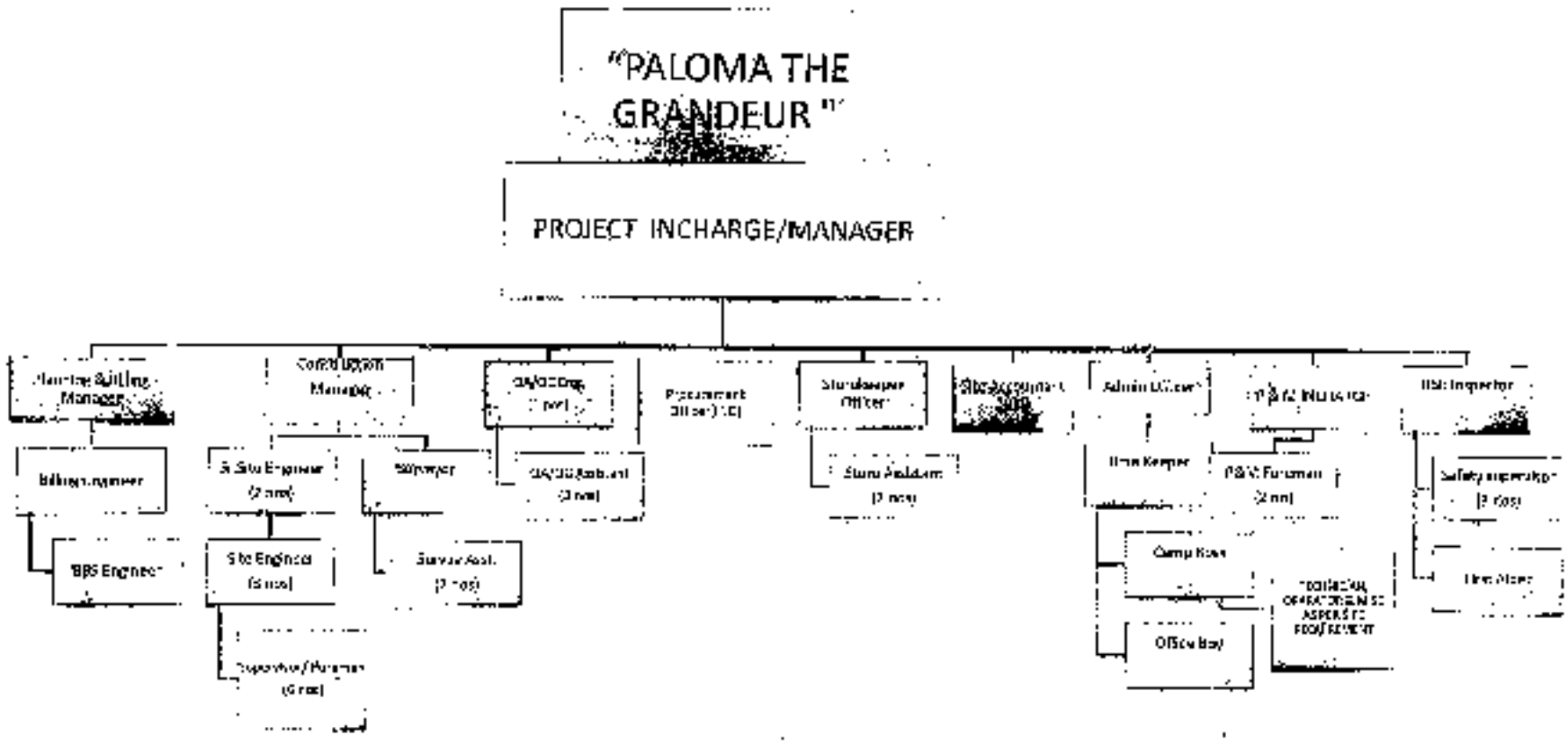
S. No.	Description of Items	Unit	Qty	Rate	Amount
4	Waterproofing Layer of Techno Flexi PU 660: Pure Polyurethane based Liquid Applid Elastomeric Seamless Membrane on D-Wall			-	-
	Cleaning the surface to our requirements, and thereafter, providing and applying of "Techno Flexi PU 660" manufactured by Hopce, Korea" Polyurethane liquid applied membrane, highly permanent, elastic, cold applied and cold curing, one component polyurethane membrane, used for long lasting waterproofing and installed by "Consterium Engineering". Prior to application of the PU coating, a primer coat of Techno Flexi PU Primer to be applied @ 150-200 grams per sqm by brush or roller.Techno Flexi PU 660 shall be applied in 2 coats, total consumption of app. 2 kg/sqm. Techno Flexi PU 660 membrane cures by reaction with ground and air moisture and provides excellent mechanical, chemical, thermal and UV ressitance properties having >600% elongation & tensile strength 2N/mm ² as per ASTM D 412, up to 2mm crack bridging capacity as per ASTM C836, pull off strength to concrete more than 2 N/mm2 as per ASTM D4541, Shore A hardness 60 as per ASTM D2240 & solid content 90+3% as per IS 101. Vertical application of Techno Flexi PU 660 shall be done in 3 coats. Sprinkle dry, clean, angular silica sand on final coat of all horizontal and vertical application to provide anchorage for plaster applicat on.	sqm	-	-	-
				-	-
	OR OTHER OPTION			-	-
				-	-
	Waterproofing Layer of self addsive SBS membrane Sika Shield on D-Wall			-	-
	Providing and Applying wetbonded a 1.5 mm thick double-sided modified bitumen Self adhesive water proofing membrane having release liner on both sides for wet-application on the retaining wall. The procedure involves the concrete to be saturated by water (use water hose). Any protrusions need to be removed and the concrete surface needs to be cleansed. A bonding slurry (withapproximate of 2-3 kg/m2) is applied to the substrate. Then the membrane is unrolled and pressed into the freshslurry after removal of the release liner. The long edges of the membrane are overlapped by min. 80 mm and firmly pressed together using a roller. The short edges of the membrane are overlapped inthe same way. The overlaps need to be staggered.		-	-	-
	TOTAL			-	**2,29,21,890**
7	**STRUCTURAL STEEL WORK**			-	-
				-	-
	Supplying, fabricating, assembling, hoisting /erecting and fixing in position at all heights and with all loads, structural steel works of MS rolled sections/Plate as per structural drawings and as per detailed specifications (for materials & workmanship) in the situations described herein after complete rate shall including primer and 2 or more coats of paint by spray gun as per detailed specifications and manufacturers recommendations. The welding electrode to be used shall be E-7018 (radiographic quality) or equivalent as per IS classification. The grade of steel shall be Ysi 345.The rate to include providing and applying intumescent fire retardant paint (two hour rating) of approved quality on steel work as per manufacturer's specification including all materials, labour complete as per direction of Engineer-in-charge (Paint shall be in accordance with AS 1530/4 and BS 476 part 8 ASTM-E : 119 and anti - corrosive).	MT	200	1,51,200	3,02,40,000
	TOTAL			-	**3,02,40,000**
	Grand Total				**1,36,35,20,702**

LABOUR HISTOGRAM – OMA THE GRANDEUR



	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36
1) Labour Total Force																																				
2) Labour for Cladding	[illegible]	6	7	[illegible]	6	15	15	15	15	15	[illegible]	5	15	15	15	15	15	15	[illegible]	[illegible]	[illegible]	[illegible]	18	15	15	18	[illegible]	[illegible]	18	15	15	15	15	15	5	[illegible]
3) Labour for Shuttering (Carpentry & Rebar)	[illegible]	[illegible]	0	[illegible]	0	[illegible]	[illegible]	35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0
4) Labour for Subcontractor Scope (Finishes & Services)	0	[illegible]	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	65	65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0
5) Concrete Pour Line	[illegible]	[illegible]	5	[illegible]	5	10	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	10	10	10	10	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0
6) Skilled Labour	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7) Unskilled Labour	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8) Housekeeping	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	8	8	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9) Misc. Work	5	[illegible]	5	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	200	200	200	[illegible]	200	200	200	200	200	[illegible]	[illegible]	200	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PROJECT ORGANIZATION CHART



Total = 41 Persons

2	(Twin Cage)	Nos	1.0	16TH/17TH MONTH	
3	Concrete Pump (High rise)	Nos	1.0	1ST/2ND MONTH	
4	Generator -125 Kva	Nos	1.0	1ST/2ND MONTH	Backup Power
5	Generator -62.5 Kva	Nos	1.0	1ST/2ND MONTH	Backup Power
	Small Equipments				
6	Smart poker	NOS	1.0	1ST/2ND MONTH	
7	HF Vibrator/converter needle	NOS	2.0	1ST/2ND MONTH	
8	Vibrator	NOS	4.0	1ST/2ND MONTH	
9	Needle	NOS	25.0	1ST/2ND MONTH	
10	Bar cutting machine	NOS	4.0	1ST/2ND MONTH	
11	Bar bending machine	NOS	4.0	1ST/2ND MONTH	
12	Dewatering pumps	NOS	6.0	1ST/2ND MONTH	
13	Table saw M/C	NOS	2.0	1ST/2ND MONTH	
14	Welding M/C	NOS	3.0	1ST/2ND MONTH	
15	Gas cutting set	NOS	2.0	1ST/2ND MONTH	
16	Misc Equipment	NOS	1.0	AS PER REQUIREMENT	
17	Digital weighing	NOS	1.0	1ST/2ND MONTH	
18	Curing pump 25HP	NOS	2.0	1ST/2ND MONTH	
	Survey Equipment				
19	Total Station with acessories	NOS	1.0	1ST/2ND MONTH	
20	Levelling Instrument, Incl Stand & Staff	NOS	2.0	1ST/2ND MONTH	
	Hire PMV				
21	VEHICLE FOR STAFF	NOS	2.0	1ST/2ND MONTH	
22	JCB 3DX	Nos	1.0	AS PER REQUIREMENT	
23	HYDRA 14 MT	Nos	1.0	AS PER REQUIREMENT	
	Testing/ Lab Equipment				
24	CTM	NOS		1ST/2ND MONTH	QTY. AS PER SITE REQUIREMENT
25	CUBE MOLDS	NOS		1ST/2ND MONTH	
26	CONCRETE CONE	NOS		1ST/2ND MONTH	
27	SIEVE SETS	NOS		1ST/2ND MONTH	
28	ELECTRONICS BALANCE-10 KG	NOS		1ST/2ND MONTH	
29	WHEEL BARROW	NOS		1ST/2ND MONTH	
30	TRIAL MIXTURE MACHINE FOR LAB	NOS		1ST/2ND MONTH	
31	OVEN WITH THERMOSTAT	NOS		1ST/2ND MONTH	

		area	Tower area	area	
	basement 2	6015	1425	4590	
	basement 1	6150	1425	4725	
	ground floor	6075	1425	4650	
	court	370	370		
	business centre	565	565		
	club	1365	1365		
	1st floor	1565	1565		
	2nd floor	1500	1500		
	for 29 floors	43500	43500		
	refuse floor	1500	1500		
	33rd floor lower penthouse	1585	1585		
	34th floor upper penthouse	1245	1245		
	terrace	1500	1500		
	upper terrace	1015	1015		
	Mumty/oht	100	100		
		74050	60085	13965	
1	SITE WORK				
1.1	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means over areas (exeeding 30cm in depth, 1.5 mtr in width as well as 10 sqm on plan) including retaining of 10000 cum of excavated earth and rest of the excavated earth shall be getting out / disposal as directed by Engineer-in-charge.Accordingly the rate shall be quote by the vendor				
a	All kind of soil.	cum	97582		
1.2	Extra for every additional lift of 1.5 m or part there of in excavation/ banking excavated or staking materials.				
a	1.5 m to 3.0 m	cum	9225		
b	3.0 m to 4.5 m	cum	9225		
c	4.5 m to 6.0 m	cum	9225		
d	6.0 m to 7.5 m	cum	9225		
e	7.5 m to 9.0 m	cum	9225		
f	9.0 m to 10.5 m	cum	9225		
g	10.5 m to 12.0 m	cum	9225		
h	12.0 m to 13.5 m	cum	9225		
i	13.5 m to 15.0 m	cum	7189		
j	15.0 m to 16.5 m	cum	2438		
k	15.0 m to 16.5 m	cum	284		
1.3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, of all leads and all lift.	cum	2226		

	concentration.(Plinth area will be measured).	sqm	6765		
	TOTAL				
2	**CONCRETE WORK**				
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
i)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	cum			
ii)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	cum			
iii)	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).	cum			
iv)	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	cum			
2.2	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and 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 plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, 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 : (1) Excess/less cement used than specified in this item is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS : 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 -2000 in the items of BMC and RMC.Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering.				
i)	All works upto plinth level:				
i)	M-15 grade plain cement concrete	cum			
iii)	M-10 grade plain cement concrete	cum	507		
	TOTAL				
3	**RCC WORK**				
3.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost centering, shuttering, finishing and reinforcement as per direction of Engineer-in-charge	cum			
3.2	Providing and laying in position ready mixed M30 grade concrete for reinforced cement concrete work, using fly ash and cement content as per approved design mix, manufactured in fully automatic batching plant and tranported to site of work in transit mixers for all leads, having contineous agitated mixer, manufactured as per mix design of specified grade of				

3.2.2	All works above plinth level.	cum	26894		
3.2.3	Extra for RCC/ BMC/ RMC work above floor Vth level for each 4 floors or part thereof.				
3.2.4	Extra for providing richer mixes for all floor levels				
3.2.4.1	Proving M35 grade concrete instead of M30 grade concrete BMC / RMC.	cum	4455		
3.2.4.2	Proving M40 grade concrete instead of M30 grade concrete BMC / RMC.	cum			
3.2.4.3	Proving M45 grade concrete instead of M30 grade concrete BMC / RMC.	cum	7407		
3.2.4.4	Proving M50 grade concrete instead of M30 grade concrete BMC / RMC.	cum	7164		
3.2.4.5	Proving M60 grade concrete instead of M30 grade concrete BMC / RMC.	cum	2927		
3.2.4.6	Proving M70 grade concrete instead of M30 grade concrete BMC / RMC.	cum	10747		
3.3	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in positon and binding all complete upto plinth level.				
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	1767193	55 02 97	56 00 MT
3.4	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete above plinth level.			59 47	
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	3815404		
3.5	Installing/ fixing in position Threaded Tension compression Mechanical Couplers for rebars as per BS 8110, having Bar Break Properties for 100% Tension and compression joints as per Manufacturer's recommendations and as per the direction of the Project Manager. The item includes all operations and arrangements such as threading with manufacturers machines and operators, provision of Bar Caps to protect the threads on rebars and related operations and arrangements as required to complete the work (Only couplers shall be supplied by Owner free of cost; threading & all necessary arrangement for fixing in position shall be done by the Contractor at his own cost)				
i)	Coupler for 16mm dia reinforced bar	nos	24000	66,000 Nos	
ii)	Coupler for 20mm dia reinforced bar	nos	19000		
iii)	Coupler for 25mm dia reinforced bar	nos	17000		
iv)	Coupler for 32mm dia reinforced bar	nos	6000		
	TOTAL				
4	FORMWORK				
4.1	Centering and shuttering including strutting, propping etc and removal of forms of all heights.				
4.1.1	Foundations, footings, bases of columns, etc for mass concrete.	sqm	2010		
4.1.2	Walls (of any thickness) including attached plasters, buttresses, plinth and				

	specified including all chamfers, splays, keys, wedges, brackets, all materials, tools, plant and labour complete. The work shall be carried out as per Manufacturers drawings, specficiations and as directed by Engineer- in-				
4.2.1	Suspended floors, roofs, balconies, landing and access platform.	sqm	46751		
4.2.2	Shear wall, Columns , pillars , posts,piers, abutment , struts.	sqm	57384		
4.2.3	Lintels, Beams, plinth beams , girders , bressumers , sillscantilevers.	sqm	28700		
4.2.4	Stair (excluding landing) except spiral stair.	sqm	7272		
4.2.5	Non structural wall	sqm	34146		
4.2	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.50 meter for every additional height of 1 meter or part thereof (Plan area to be measured).				
	Suspended floors, roofs, landings, beams and balconies (Plan area to be measured).	sqm	74050		
5	**WATERPROOFING**				
5.1	Providing and applying water proofing treatment to toilets, pantries, balconies and other wet areas base and walls with three coats of Tapecrete each mixed with grey cement in proportion 1 : 2 (1 tapecrete : 2 grey cement) over a primer coat as per manufacture specification. All joints, corners, junction of pipes &masonary to be sealed with epoxy putty. The water proofing is to be laid on a smooth plaster surface. The treatment is to be done on the base, underneath and behind all pipes and taken up on vertical walls upto a height of minimum 150 mm above the finished floor level . 12 to 15 mm cement plaster to be done after the treatment etc. all complete as per manufacture specification &recommendation. (Rate to include all plaster work required for the complete treatment)	sqm			
5.2	Terrace waterproofing				
	Polyurea with thermal insulation	sqm	1575		
5.3	**WATER PROOFING OF LANDSCAPE DECKS WITH SINGLE COMPONENT LIQUID POLYURETHANE WATERPROOFING MEMBRANE (Silcor 560 LS / Silcor 560)**				
	Supplying and Applying **Silcor 560 LS / Silcor 560** (manufactured by GCP Applied Technologies and applied by GCP aprroved applicator) @ 2.1 kg /sqm , A high performance, low odour, one-part, fastcuring, high solids, polyurethane elastomer waterproof membrane over uniform surface (smooth and free from dust, laitance, loose matter, all curing compounds, form release agents, oil or other contaminants) of Terrace slab cured for 28 days and rendered 7 days. All abrupt irregularities, voids & honeycombed areas on terrace slab shall be made good before membrane application. Inspect primed surfaces to for pin holes. Reprime if necessary to seal remaining pin holes. Roughen PVC or stainless steel before priming with Silcor Primer BS. Apply Silcor 560 to a DFT (Dry Film Thickness) of 1.2 mm .Apply in one or two coats by spray/roller or brush application. Silcor 560 is a pure polyurethane elastomer. It does not contain bitumen or tar and will not bleed or stain.Silcor 560 should have following minimum properties: i) **Solid % Vol: (91 + 3)**				

5.5	D Wall Waterproofing.				
1	Drilling & Packer fixing at D'wall Joints .				
	Providing & Fixing "NRV Packers" including drilling of 14 mm dia holes of required depth, fixing packers and sealing the leak path surrounding packers using rapid setting mortar				
2	PU Injection at D'wall Joints				
	Providing and Injecting ADCOS, Belgium manufactured single component, closed cell, low-viscosity, hydro-active, hydrophilic polyurethane injection grout Purinject 1c Hydrofoam with CE Marking using high pressure electric operated piston injection Pump which includes consumables like thinner, oil, connector, adaptors, etc; removing packers after injection, cleaning region and making the surface good etc complete.				
3	Repair of Anchor points by Cement grouting and GP2				
	Cleaning of Anchor holes manualyy and by water jet, injction of cement slurry into the hole admixed with non-shring compound Cebex 100 of Fosroc by dosage of 200 gms per bag of cement followed by filling the rets of the cavilty by high strength repair mortar GP2 manufactured by Fosroc.				
4	Waterproofing Layer of Techno Flexi PU 660: Pure Polyurethane based Liquid Applid Elastomeric Seamless Membrane on D-Wall				
	Cleaning the surface to our requirements, and thereafter, providing and applying of "Techno Flexi PU 660" manufactured by Hepce, Korea" Polyurethane liquid applied membrane, highly permanent, elastic, cold applied and cold curing, one component polyurethane membrane, used for long lasting waterproofing and installed by "Constorium Engineering". Prior to application of the PU coating, a primer coat of Techno Flexi PU Primer to be applied @ 150-200 grams per sqm by brush or roller.Techno Flexi PU 660 shall be applied in 2 coats, total consumption of app. 2 kg/sqm. Techno Flexi PU 660 memebrane cures by reaction with ground and air moisture and provides excellent mechanical, chemical, thermal and UV resistance properties having >800% elongation & tensile strength 2N/mm ² as per ASTM D 412, up to 2mm crack bridging capacity as per ASTM C836, pull off strength to concrete more than 2 N/mm2 as per ASTM D4541, Shore A hardness 60 as per ASTM D2240.&.solid content 90+3% as per IS 101. Vertical application of Techno Flexi PU 660 shall be done in 3 coats. Sprinkle dry, clean, angular silica sand on final coat of all horizontal and vertical application to provide anchorage for plaster application.	sqm	5250		
	OR OTHER OPTION				
4	Waterproofing Layer of self addisive SBS membrane Sika Shield on D-Wall				
	Providing and Applying wetbonded a 1.5 mm thick double-sided modified bitumen Self adhesive water proofing membrane having release liner on both side for wet-application on the retaining wall. The procedure involves the concrete to be saturated by water (use water hose). Any protrusions need to be removed and the concrete surface needs to be cleaned. A bonding slurry (withapproximate of 2–3 kg/m2) is applied to the substrate. Then the membrane is unrolled and pressed into the freshslurry after removal of the				

	and removal of same and the length of the pile to be embedded in the pile cap etc. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete or by manual augar, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note : Cement content is not less than 400 kg/cum				
6.1.1	750 mm	rmt	9510		
6.2	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
i	Thermo mechanically Treated bars of grade Fe 500D or more.	kg	482915		
	TOTAL				
7	**STRUCTURAL STEEL WORK**				
	Supplying, fabricating, assembling, hoisting /erecting and fixing in position at all heights and with all leads, structural steel works of MS rolled sections/Plate as per structural drawings and as per detailed specifications (for materials & workmanship) in the situations described herein after complete rate shall including primer and 2 or more coats of paint by spray gun as per detailed specifications and manufacturer's recommendations. The welding elctrode to be used shall be E-7018 (radiographic quality) or equivalent as per IS classification. The grade of steel shall be Yst 345.The rate to include providing and applying intumescent fire retardant paint (Two hour rating) of approved quality on steel work as per manufacturer's specification including all materials, labour complete as per direction of Engineer-in-charge (Paint shall be in accordance with AS 1530/4 and BS 476 part 8 ASTM-E : 119 and anti - corrosive).	MT	200		
	TOTAL				
8	**DIAPHRAGM WALL**				

	Rate shall include slope preparation and placing of sand bags in the sloping portion. The quoted rate shall be inclusive of design review / vetting (by Structural Consultant appointed by Client & IIT appointed by Contractor), mobilisation and demobilisation of equipments, boring, reinforcement steel, concreting with RMC, HT strands/ Anchors including post tensioning, Guide wall and conducting test as required etc. complete in all respect to the satisfaction of the Structural Consultant/ Engineer-in-charge. The Contractor shall submit the preliminary design at bidding stage, technical details and drawings highlighting below but not limited to the following: 1) Size of D-Wall. 2) Grade of concrete. 3) Reinforcement details. 4) HT strands/ Anchors 5) Guide Wall details(if required) 6) Other relevant details.	sqm	5250		
	TOTAL				

	basement 2	6015	1425	4590
	basement 1	6150	1425	4725
	ground floor	6075	1425	4650
	court	370	370	
	business centre	565	565	
	club	1365	1365	
	1st floor	1565	1565	
	2nd floor	1500	1500	
	for 29 floors	43500	43500	
	refuse floor	1500	1500	
	33rd floor lower penthouse	1585	1585	
	34th floor upper penthouse	1245	1245	
	terrace	1500	1500	
	upper terrace	1015	1015	
	Mumty/oht	100	100	
		74050	60085	13965
		= 796718 sft		
1	**SITE WORK**			
		Say	8.0 lac sft	
1.1	Earthwork in excavation by mechanical means (hydraulic excavator)/manual means over areas (exeeding 30cm in depth, 1.5 mtr in width as well as 10 sqm on plan) including retaining of 10000 cum of excavated earth and rest of the excavated earth shall be getting out / disposal as directed by Engineer-in-charge.Accordingly the rate shall be quote by the vendor			
a	All kind of soil.	cum	97582	
1.2	Extra for every additional lift of 1.5 m or part there of in excavation/ banking excavated or staking materials.			
a	1.5 m to 3.0 m	cum	9225	
b	3.0 m to 4.5 m	cum	9225	
c	4.5 m to 6.0 m	cum	9225	
d	6.0 m to 7.5 m	cum	9225	
e	7.5 m to 9.0 m	cum	9225	
f	9.0 m to 10.5 m	cum	9225	
g	10.5 m to 12.0 m	cum	9225	
h	12.0 m to 13.5 m	cum	9225	
i	13.5 m to 15.0 m	cum	7189	
j	15.0 m to 16.5 m	cum	2438	
k	15.0 m to 16.5 m	cum	284	
1.3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, of all leads and all lift.	cum	2226	

	surface of consolidated earth on which apron is to be laid, surrounding of pipes and conduits etc. complete as per specification (plinth area of the building at ground floor only shall measured for payment) - Chlorpyriphos / Lindane emulsifiable concentrate of 20% with 1% concentration.(Plinth area will be measured).	sqm	6765	
	TOTAL			
2	**CONCRETE WORK**			
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.			
i)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size).	cum		
ii)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	cum		
iii)	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40mm nominal size).	cum		
iv)	1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20mm nominal size).	cum		
2.2	Providing and laying in position ready mixed plain cement concrete, using fly ash and cement content as per approved design mix and 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 plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, 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** : (1) Excess/less cement used than specified in this item is payable/ recoverable separately. (2) Fly ash conforming to grade I of IS 3812 (Part-1) only be used as part replacement of OPC as per IS.: 456. Uniform blending with cement is to be ensured in accordance with clauses 5.2 and 5.2.1 of IS: 456 -2000 in the items of BMC and RMC.Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering.			
i)	All works upto plinth level:			
ii)	M-15 grade plain cement concrete	cum		
iii)	M-10 grade plain cement concrete	cum	507	
	TOTAL			
3	**RCC WORK**			
3.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost centering, shuttering, finishing and reinforcement as per direction of Engineer-in-charge	cum		

	per mix design of specified grade of reinforced cement concrete work, including pumping of RMC concrete from transit mixer 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 :- 1) Fly ash confirming to grade I of IS 3812)Part-1) only be used as part replacement of OPC as per IS: 456. Uniform blending with cement to be ensured In accordance with clauses 5.2 and 5.2.1 of IS:456-2000 in the items of and RMC.			
3.2.1	All works upto plinth level	cum	14358	
3.2.2	All works above plinth level.	cum	26894	
3.2.3	Extra for RCC/ BMC/ RMC work above floor Vth level for each 4 floors or part thereof.			
3.2.4	Extra for providing richer mixes for all floor levels			
3.2.4.1	Proving M35 grade concrete instead of M30 grade concrete BMC / RMC .	cum	2850	
3.2.4.2	Proving M40 grade concrete instead of M30 grade concrete BMC / RMC .	cum	1668	
3.2.4.3	Proving M45 grade concrete instead of M30 grade concrete BMC / RMC .	cum	1464	
3.2.4.4	Proving M50 grade concrete instead of M30 grade concrete BMC / RMC .	cum	5361	
3.2.4.5	Proving M60 grade concrete instead of M30 grade concrete BMC / RMC .	cum	2889	
3.2.4.6	Proving M70 grade concrete instead of M30 grade concrete BMC / RMC .	cum	8676	
3.2.4.7	Proving M80 grade concrete instead of M30 grade concrete BMC / RMC	cum	1464	
4.8	Proving M90 grade concrete instead of M30 grade concrete BMC / RMC .	cum	878	
3.2.4.9	Proving M100 grade concrete instead of M30 grade concrete BMC / RMC .	cum	4421	
3.3	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete upto plinth level.			
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	1767193	
3.4	Steel reinforcemnt work for RCC including straightening, cutting, bending, placing in position and binding all complete above plinth level.			5582 MT
i)	Thermo mechanically Treated bars of grade Fe 550D or more.	kg	3815404	
3.5	Installing/ fixing in position Threaded Tension compression Mechanical Couplers for rebars as per BS 8110, having Bar Break Properties for 100% Tension and compression joints as per Manufacturer's recommendations and as per the direction of the Project Manager. The item includes all operations and			

	TOTAL			
4	FORMWORK			
4.1	Centering and shuttering including strutting, propping etc and removal of forms of all heights.			
4.1.1	Foundations, footings, bases of columns, etc for mass concrete.	sqm	2010	
4.1.2	Walls (of any thickness) including attached plasters, buttresses, plinth and string courses etc.	sqm	1714	
4.1.3	Suspended floors, roofs, landings, balconies and access platforms.	sqm	18826	
4.1.4	Lintels, Beams, plinth beams , girders , bressumers, cantilevers.	sqm	19197	
4.1.5	Shear walls, Columns, Pillars, Piers, Abutments, Posts & Struts	sqm	11927	
4.1.6	Stair (excluding landing) except spiral stair.	sqm	3095	
(.7	oht	sqm	800	
4.2	MIVAN/ EQUIVALENT SHUTTERING:			
	Designing Providing and fixing approved Mivan / Equivalent shuttering (formwork) system in position and removing the same after the specified periods for all types of shuttering for reinforced cement concrete works as specified including all chamfers, splays, keys, wedges, brackets, all materials, tools, plant and labour complete. The work shall be carried out as per Manufacturers drawings, specficiations and as directed by Engineer- in-charge.			
4.2.1	Suspended floors, roofs, balconies, landing and access platform.	sqm	46751	
4.2.2	Shear wall, Columns , pillars , posts,piers, abutment , struts.	sqm	57384	
4.2.3	Lintels, Beams, plinth beams , girders , bressumers , cillscantilevers.	sqm	28700	
4.2.4	Stair (excluding landing) except spiral stair.	sqm	7272	
4.2.5	Non structural wall	sqm	34146	
4.2	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.50 meter for every additional height of 1 meter or part thereof (Plan area to be measured).			
(	Suspended floors, roofs, landings, beams and balconies (Plan area to be measured).	sqm	74050	
	TOTAL			
5	WATERPROOFING			
5.1	Providing and applying water proofing treatment to toilets, pantries, balconies and other wet areas base and walls with three coats of Tapecrete each mixed with grey cement in proportion 1 : 2 (1 tapecrete : 2 grey cement) over a primer coat as per manufacture specification. All joints, corners, junction of pipes &masonary to be sealed with epoxy putty. The water proofing is to be laid on a smooth plaster surface. The treatment is to be done on the base, underneath and behind all pipes and taken up on vertical walls upto a height of minimum 150 mm above the finished floor level . 12 to 15 mm cement plaster to be done after the treatment etc. all complete as per manufacture specification &recommendation. (Rate to include all plaster work required for the complete treatment)			

	Applied Technologies and applied by GCP aprroved applicator) @ 2.1 kg /sqm . A high performance, low odour, one-part, fastcuring, high solids, polyurethane elastomer waterproof membrane over uniform surface (smooth and free from dust, laitance, loose matter, all curing compounds, form release agents, oil or other contaminants) of Terrace slab cured for 28 days and rendered 7 days. All abrupt irregularities, voids & honeycombed areas on terrace slab shall be made good before membrane application. Inspect primed surfaces to for pin holes. Reprime if necessary to seal remaining pin holes. Roughen PVC or stainless steel before priming with Silcor Primer BS. Apply Silcor 560 to a DFT (Dry Film Thickness) of 1.2 mm .Apply in one or two coats by spray/roller or brush application. Silcor 560 is a pure polyurethane elastomer. It does not contain bitumen or tar and will not bleed or stain.Silcor 560 should have following minimum properties: i) **Solid % Vol: (91 ± 3)** ii) **Tensile Strength > 2.0 MPa (ASTM D412)** Iii) **Elongation > 550% (ASTM D412)** iv) **Shore A Hardness - 60 ± 5 (ASTM D2240)** v) **Chemical Resistance - Excellent (ASTM C643)**	sqm	4650	
5.4	In basement horizontal surface			
	Fully Bonded HDPE membrane type water proofing is to be carried out in raft /s in foundation work. Pre-applied fully bonded HDPE membrane shall be installed with selvedge laps, and end laps executed with supplier instructions. Pre-applied fully bonded HDPE membrane shall be laid over the entire area and returned on to the diaphragm/retaining wall & terminated as per manufacturer instructions till the level of raft slab.	sqm	6015	
5.5	D Wall Waterproofing			
1	Drilling & Packer fixing at D'wall Joints			
	Providing & Fixing "NRV Packers" including drilling of 14 mm dia holes of required depth, fixing packers and sealing the leak path surrounding packers using rapid setting mortar			
2	PU Injection at D'wall Joints			
	Providing and Injecting ADCOS, Belgium manufactured single component, closed cell, low-viscosity, hydro-active, hydrophilic polyurethane injection grout Purinject 1c Hydrofoam with CE Marking using high pressure electric operated piston injection Pump which ncludes consumables like thinner, oil, connector, adaptors, etc; removing packers after injection, cleaning region and making the surface good etc complete.			
3	Repair of Anchor points by Cement grouting and GP2			
	Cleaning of Anchor holes manualyy and by water jet, injction of cement slurry into the hole admixed with non-shring compound Cebex 100 of Fosroc by dosage of 200 gms per bag of cement followed by filling the rets of the cavilty by high strength repair mortar GP2 manufactured by Fosroc.			
4	Waterproofing Layer of Techno Flexi PU 660: Pure Polyurethane based Liquid Applid Elastomeric Seamless Membrane on D-Wall			

	primer coat of Techno Flexi PU Primer to be applied @ 150-200 grams per sqm by brush or roller.Techno Flexi PU 660 shall be applied in 2 coats, total consumption of app. 2 kg/sqm. Techno Flexi PU 660 memebrane cures by reaction with ground and air moisture and provides excellent mechanical, chemical, thermal and UV resistance properties having >800% elongation & tensile strength 2N/mm ² as per ASTM D 412, up to 2mm crack bridging capacity as per ASTM C836, pull off strength to concrete more than 2 N/mm2 as per ASTM D4541, Shore A hardness 60 as per ASTM D2240 & solid content 90+3% as per IS 101. Vertical application of Techno Flexi PU 660 shall be done in 3 coats. Sprinkle dry, clean, angular silica sand on final coat of all horizontal and vertical application to provide anchorage for plaster application.	sqm	5250	
	OR OTHER OPTION			
	Waterproofing Layer of self addisive SBS membrane Sika Shield on D-Wall			
	Providing and Applying wetbonded a 1.5 mm thick double-sided modified bitumen Self adhesive water proofing membrane having release liner on both side for wet-application on the retaining wall. The procedure involves the concrete to be saturated by water (use water hose). Any protrusions need to be removed and the concrete surface needs to be cleaned. A bonding slurry (withapproximate of 2–3 kg/m2) is applied to the substrate. Then the membrane is unrolled and pressed into the freshslurry after removal of the release liner. The long edges of the membrane are overlapped by min. 80 mm and firmly pressed together using a roller. The short edges of the membrane are overlapped inthe same way. The overlaps need to be staggered.			
	TOTAL			
6	**PILE WORK**			
6.1	Boring, providing and installation bored cast-in-situ reinforced cement concrete single under reamed piles of grade M-35 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. by percussion drilling using Direct mud circulation (DMC) or Bailer and chisel technique by tripod and mechanical Winch Machine all complete or by manual augar, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note : Cement content is not less than 400 kg/cum			
6.1.1	750 mm	mt	9510	
6.2	Steel reinforcemnt work for RCC including stralghtening, cutting, bending, placing in position and binding all complete upto plinth level.			
i	Thermo mechanically Treated bars of grade Fe 500D or more.	kg	482915	
	TOTAL			

	and manufacturer's recommendations. The welding elctrode to be used shall be E-7018 (radiographic quality) or equivalent as per IS classification. The grade of steel shall be Yst 345.The rate to include providing and applying intumescent fire retardant paint (Two hour rating) of approved quality on steel work as per manufacturer's specification including all materials, labour complete as per direction of Engineer-in-charge (Paint shall be in accordance with AS 1530/4 and BS 476 part 8 ASTM-E : 119 and anti - corrosive).	MT	200	
	TOTAL			
8	**DIAPHRAGM WALL**			
	Design and Build of Diaphragm wall as per approved design, for stabilization of basement with maximtun depth specified in drawings including all material, equipment and manpower by doing anchoring, grouting , guide wall construction & removal after D wall construction, using impermeable concrete as per the specifications, complete in all respected as per approved Design. Diaphragm wall shall have cut outs as per structural drawings and rate shall include for insert plates for connection of basements slab by the Civil Contractor, as per details provided in the Structure drawings. Rate shall include slope preparation and placing of sand bags in the sloping portion. The quoted rate shall be inclusive of design review / vetting (by Structural Consultant appointec by Client & IIT appointed by Contractor), mobilisation and demobilisation of equipments, boring, reinforcement steel, concreting with RMC, HT strands/ Anchors including post tensioning, Guide wall and conducting test as required etc. complete in all respect to the satisfaction of the Structural Consultant/ Engineer-in-charge. The Contractor shall submit the preliminary design at bidding stage, technical details and drawings highlighting below but not limited to the following: 1) Size of D-Wall. 2) Grade of concrete. 3) Reinforcement details: 4) HT strands/ Anchors 5) Guide Wall details(If required) 6) Other relevant details.	sqm	5250	
	TOTAL			

MA REALTY KANPUR

ure	Area sqm	RCC	RCC	Coeff	Shuttering sqm	Steel Coeff	Steel kg
		66	3984.54	0.26	1032.45	85	338685.80
		0.070	977.5	1.00	977.55	80	78204.00
rea Raft	15.00	0.238	1285.03	4	60931.68	175	2499881.06
	13965.00	0.075	1047.38	8.00	8379.00	190	199001.25
ab	60085.00	0.126	7575.45	0.89	53706.25	80	608036.00
ab	13965.00	0.142	1978.05	0.85	11870.25	80	158244.00
Beam	60085.00	0.073	4382.43	8	34492.36	200	876485.00
Beam	13965.00	0.147	2047.80	7	13404.60	210	430038.00
wall	74050.00	0.004	294.08	6	1713.60	125	36760.50
	74050.00	0.020	1481.00	7	10367.00	140	207340.00
	60085.00	0.015	918.00			45	41310.00
ab	60085.00	0.002	100.00	8	800.00	125	12500.00
wall	60085.00	0.036	2180.25	16	34145.63	45	98111.32
	74050.00		**41251.56**		**231820.37**		**5582596.92**
S	QTY	COEFF	UNIT				
	41251.56	0.56	cum/sqm				
JTTERING	231820.37	3.13	sqm/sqm				
EEL	5582596.92	75.39	kg/sqm				

AREA CONSIDERED		Tower	Non
	6015	1425	
basement 2	6150	1425	
basement 1	6075	1425	
ground floor	370	370	
court	565	565	
business centre	1365	1365	
club	1565	1565	
1st floor	1500	1500	
2nd floor	43500	43500	
for 29 floors	1500	1500	
refuse floor	1585	1585	
33rd floor lower penthouse	1245	124	
34th floor upper penthouse	1500	150	
terrace	1015	10	
upper terrace	100	1	
Mumty/oht			
	74050	60	