Project: EXPANSION OF THE SOM BUILDING PHASE 2

Reference No.: SO-G-17-040

Site Location :

Phase: Masterplan Area: Expansion (Ph.2) Date: 23-Feb-21
Prepared By: CGM
Checked & Approved By:
Revision No.: 013

## NOTES

>The Plans, Detailed Drawings, Specifications, Detailed Bill of Quantities, Terms of Reference, Contract Agreement and other Bid Documents shall be considered as complementing each other, so that what is mentioned or shown in one, although not mentioned in the other, shall be considered as appearing in both. In case of conflict between the two, the same should be referred to the Designing Architect/Engineer for resolution with the aproval of the Head of Procuring Entity.

- >The construction shall be finished with first class workmanship to the satisfaction of the Head of Procuring Entity.
- >The items, description and quantities given on the first three columns of the Bill of Quantities/Bid Form, guides only to the owner/bidder interpreting the plans and technical specifications. The owner is not responsible for any mistakes, inaaccuracies, duplications, or omissions in these list of the Bill of Quantities/Bid Form which shall never be a basis for additions nor deletions to the scope (Door
- >The unit and total bid prices must include all direct and indirect cost/expenses such as overhead, contingencies and miscellaneous (OCM); profit; value added tax and other obligations of any kind under which the contract must be borne by the Bidder since they are necessary to install, construct and complete the whole of the contract in accordance with the bid documents.
- >The Grand Total Cost shall iclude the supply, delivery, installation of materials, labor, construction supervision and equipment including testing and commissioning of equipment by the contractor.

				E	BILL OF	QUANT	ITIES								
				Material	Equipment	Labor	Estimated Direct	Mark-ups	in Percent	Tota	l Mark Up	VAT	Total Indirect	Total Cost	Unit Cost
Item No.	Description	Qty	Unit	Cost	Cost	Cost	Cost	ОСМ	Profit	%age	Value		Cost		
		1	2	3	4	5	6	7	8	9	<b>10</b> 7+8	11 5% x (6+ 10)	<b>12</b> 10+ 11	<b>13</b> 6 + 12	14 (13) / (1)
		ļ ļ		3	4	5	U	,		9	7 +0	3/8 X (0+ 10)	10+11	0 + 12	(13)7(1)
1.0	GENERAL REQUIREMENTS														
1.1	Mobilization and Demobilization	1.00	lot												
1.2	Temporary Facilities / Utilities	1.00	lot												
1.3	Safety Occupational Hazards	1.00	lot												
1.4	As- Built Plans	1.00	lot												
1.6	Clearing, cleaning, and Hauling of Debris	1.00	lot												
1.7	Handling of Materials	1.00	lot												
1.8	Demolition of Existing Structures	1.00	lot												
3.0	STRUCTURAL WORKS														
3.A	CONCRETE WORKS/REINFORCEMENT/SCAFFOLDING/FO	ORMS													
3.1	Concrete Forms and Accessories	821.27	sq.m												
3.1.1	Footing	32.60	<del>sq.m</del>					This item is	included in Phas	e 2B Expa	insion				
3.1.2	Wall Footing	28.54	<del>sq.m</del>					This item is	included in Phas	e 2B Expa	insion				
3.1.3	Slab on Grade	8.56	sq.m												
3.1.4	Retaining Wall	392.70	sq.m												
3.1.5	Concrere Ramp	3.96	sq.m												
3.1.6	Columns	65.82	sq.m												
3.1.7	Beams	78.75	sq.m												
3.1.8	Lintel Beam	21.15	sq.m												
3.1.8a	Concrete Canopy	60.36	sq.m												
3.1.9	Stiffener Column	67.27	sq.m												
3.1.10	Septic Tank and Rainwater Tank	101.11	sq.m												
3.1.11	Stairs	21.60	sq.m												
	Steel Scaffolding	2,400.00	Lin.m												
	Steel Pipes and Clamps	2,400.00	Lin.m												
	Concrete Reinforcement	13,257.89	kgs												
	Footing	1,047.16	kgs												
	Wall Footing	268.97	kgs												
	Slab on Grade	1,469.04	kgs												
	Retaining Wall	3,452.50	kgs												
	Concrere Ramp	52.80	kgs												
	Columns	2,039.40	kgs												
	Beams	2,539.55	kgs												
	Lintel Beam	224.36	kgs												
	Concrete Canopy	241.00	kgs												
	Stiffener Column	581.78	kgs												
	Septic Tank and Rainwater Tank	1,288.12	kgs												
	Stairs	53.21	kgs												
	Cast-in-Place Concrete	126.66	cu.m												
	Footing, 3000 psi	11.14	cu.m							1					
	Wall Footing, 3000 psi	5.51	cu.m												
	Slab on Grade, 3000 psi	40.07	cu.m							1					ļ
3.4.4	Retaining Wall, 3000 psi	27.62	cu.m							1	<b></b>				ļ
3.4.5	Concrere Ramp	1.32	cu.m												

				E	BILL OF	QUANT	ITIES								
				Material	Equipment	Labor	Estimated Direct	Mark-ups	in Percent	Tota	l Mark Up	VAT	Total Indirect	Total Cost	Unit Cost
Item No.	Description	Qty	Unit	Cost	Cost	Cost	Cost	ОСМ	Profit	%age	Value	11	Cost	13	
		1	2	3	4	5	6	7	8	9	<b>10</b> 7+8	11 5% x (6+ 10)	<b>12</b> 10+ 11	6 + 12	14 (13) / (1)
3.4.6	Columns, 4000 psi	9.27	cu.m		1	J	U	<u>'</u>		J	710	070 X (01 10)	101 11	0112	(10)7(1)
	Beams, 4000 psi	7.50	cu.m												
3.4.8	Lintel Beam, 3000 psi	1.11	cu.m												
3.4.8a	Concrete Canopy	6.04	cu.m												
	Stiffener Column, 3000 psi	3.91	cu.m												
	Septic Tank and Rainwater Tank, 3000 psi	11.44	cu.m												+
	Stairs, 3000 psi Other work items not mentioned in item 3.4 but necessary to complete (Please identify)	1.73	cu.m												
	STRUCTURAL STEEL TRUSS														
	Fabrication/Installation of Truss Framing	2,359.66	kgs												
	LC 150x65x20x2.0Purlins	2,146.86	kgs												+
	LC 100X50X20X2mm Box Strut	206.73	kgs												+
	12mm dia. Cross bracing 12mm dia. std. turnbuckles	40.00 20.00	pcs lgths												+
	10 mm dia Sag Rods	20.00	lgths	1	1				1	1		<b>†</b>			†
	Cutting desk	10.00	pcs	1					1	1		1			1
	Grinding desk	10.00	pcs		1										
	Structural Base plate and Anchor Bolt	1.00	lot												
	12mm thk. Base plate	123.65	kgs												
3.6.2	12mm dia. A325 headed anchor bolt w/ std. nuts and washers	16.00	pcs												
	16mm HIT V-rod w/ Hilti hit Re 500 V2	12.00	pcs												
	20mm HIT V-rod w/ Hilti hit Re 500 V3	30.00	pcs												
	Miscellaneous & Consumables	1.00	lot												
	Erection of Steel WF Beam	1,266.10	kgs												
	W12x22	739.72	kgs												+
	W12x40 W8x18	2,020.19 1,060.70	kgs kgs												+
3.7.3	Other work items not mentioned in item 5.3 but necessary to	1,000.70	kys												+
3.7.4	complete (Please identify)														
3.C	EARTHWORKS														
	Structural Excavation	145.19	cu.m.												
	Gravel Bedding	55.31	cu.m.												
	Backfilling and Compaction	406.25	cu.m.												+
3.7.8	Soil Poisoning Other work items not mentioned in item 3.C but necessary to	350.00	sq.m.												+
3.7.9	complete (Please identify)														
	Other work items not mentioned in item 3.0 but necessary t	to complete (Pleas	se identify)												
4.0	ARCHITECTURAL WORKS														
4.A	MASONRYL WORKS														
	Installation of 6" thk CHB Wall	399.84	SQ.M												
	CHB 6"	4,998.00	pcs	1	1				1	+		1			+
	Cement Sand Coarse	442.00 34.00	bags cu.m	<del> </del>	1				1	1		+			+
	Reinforcement (10mm dia)	228.00	lgths	1	1				1			+			+
	Tie Wires	6.00	kls						1	1					
	20mm thk Cement Plaster for CHB walls, Canopy and Parape	1,041.00	SQ.M												
4.2.1	,	217.00	bags												1
	Sand Fine	17.00	cu.m												
4.B	METALS						-							-	
4.3	50mm dia stainless steel Stairs Handrails	36.12	Lin.m												
ĺ	-50mm dia., Grade 304, Schedule 40, Stainless Steel Handrail in Hairline Finish fully Welded to 50mm diameter,	<del>16.12</del>	<del>lm</del>												
4.3.1	Grade 304, Schedule 40 Stainless Steel Vertical Support	10.12	****					This item is	included in Phas	e 28 Expa	nsion				
4.3.2	Aluminum Nosing plate w/ anti-slip strip	20.00	<del>lm</del>						included in Phar						
4.C	THERMAL AND MOISTURE PROTECTION						-							-	
4.4	0.60mm thk Roofings installation and Gutter Fabrication	325.00	sq.m												
4.4.1	Corrugated type Long span colorbonded roofing 0.60mm thk w/ roofing reflective insulation	340.00	Lin.m												
4.4.2	Stainless Steel Gutter Gauge 26	25.00	lm												
	Consumables & Miscellaneous	27.14	sq.m							1		1			
4.4.4 4.D	WP-2 UV Resistant liquid applied membrane waterproofing OPENINGS (Doors and Wndoes)	1.00	lot												
	Fabrication and Installation of Doors including Jambs & Finish	13.00	sets												
4.5	- abhoduan and matanation of Doors including Jamus & Fillish	13.00	3013												

4.2.2 D. 17 ( 1 m x 2 m) 1 m the chart double for end gloss of the chart for end gloss		Item No. Description Qty Unit Material Equipment Labor Estimated Direct VAT Cost Total Cost Unit Cost Unit Cost Cost Cost Cost OCM Profit %age Value VAT Cost Total Cost Unit Cost Unit Cost Unit Cost Cost Cost Cost Cost Cost Cost Cos														
See No. 1 Cost Cost Cost Cost Cost Cost Cost Cost									Mark-ups	in Percent	Tota	ıl Mark Up		Total Indirect	T . 10	
4.5.1 D.1.5 de x 2 tm (19 2mm Ms. class accele source glass statis in call 1 year 2 tm (19 2mm Ms. class accele source glass statis in call 1 year 2 tm (19 2mm Ms. class accele source glass statis in call 1 year 2 tm (19 2mm Ms. class accele source glass accelerate year 2 tm (19 2mm Ms. class accelerate year 2 tm (19 2mm Ms. cla	Item No.	Description	Qty	Unit					ОСМ	Profit	%age			Cost		
Cov. Provide 1-prim R. C/Spine dis. SS verificial in variety handware and market from the control of the primary handware and secondary a			1	2	3	4	5	6	7	8	9		5% x (6+ 10)	10+ 11	6 + 12	(13) / (1)
glace doz. Product 1 2mm Pal. C 2mm na. SS Varioni put headed a case (Pall Company or Co	4.5.1	door Provide 1.2mm thk. C 25mm dia. SS vertical pull handle in satin finish, complete w/ required hardware and	1.00	set/s						-						, . ,
weoden plot door prote, Norwise (TRD) (insighe plot rold wood remark a billemarks post wood one overved from machine press process in statin/variabilities, door jamb faming shall be down at floring shall be down at florin	4.5.2	glass door. Provide 1.2mm thk. C 25mm dia. SS Vertical pull handle in satin finish, complete w/ required hardware and	3.00	set/s												
wooden door panel, kin-dried Lautun sells wood framing & alternating sold wood convoiced with First No. Market process in stantivaries first, door just Framing shall be different visible and process in stantivaries first, door just Framing shall be different visible and process in stantivaries first, door just Framing shall be different visible and process in stantivaries first, door just Framing shall be different visible and process in stantivaries first, door just Framing shall be different visible and process in stantivaries first, door just Framing shall be different visible and process of the	4.5.3	wooden pivot door panel, kiln-dried (TKD) tanguile pivot solid wood framing & alternating solid wood core covered w/ 6mm thk. Marine plywood (class A) through a high compact machine press process in stain/varnish finish, door jamb framing shall be 45mm x 140mm TKD tanguile single rabbeted stop wooden jamb complete w/ locksets, hardware	1.00	set/s												
wooden door panel. kiln-dried Lauran sold wood framing & alternating sold wood core covered wif frem this. Hearing plants be processed in stain/variant finals, door jetor framing shall be processed in stain/variant finals, door jetor framing shall be processed in stain/variant finals, door jetor framing shall be processed in stain/variant finals, door jetor framing shall be processed in stain/variant finals, door jetor framing shall be processed from this. From this classed down of source plants of the processed of the processed framing shall be processed from the state double sweing glassed down framing shall be processed from the state double sweing glassed down framing shall be processed from the state double sweing glassed down framing shall be processed from the state double sweing glassed down framing shall be processed from the state of the processed framing shall be processed from the state of the processed framing shall be shall be processed from the state of the processed framing shall be shall	4.5.4	wooden door panel, kiln-dried Lauan solid wood framing & alternating solid wood core covered w/ 6mm thk. Marine plywood (class A) through a high compact machine press process in stain/varnish finish, door jamb framing shall be 45mm x 140mm Lauan single rabbeted stop wooden jamb complete w/ locksets, hardware and accessories. Provide 10mm thk. x 100mm Lauan solid wood louver blades. Provide	4.00	set/s												
door. Provide 1-2mm His. C 25mm dies SS Vertical pull handle in salish finish, complete wir, dequired handle seessories.  4-5.7 b. (6.80m x 2.4m) 12mm His. clear double swing glass-door. Provide 1-2mm His. C 25mm dies SS Vertical pull-handle in salish finish, complete wir dequired handle seessories.  4-5.8 D 4-10, 75m x 2.4m) 15ml be 4.4mm His. Swing type semi-solid woodden door panel wir view glass penel - mede from double vacuum treated kind-ried 1-auan solid wood framing 4-alternating solid wood one oovered wir 6mm His. Marine phywood (class A) through a high complet rebelled etop-wooden jamb complete wir kelled to the proper transfer press process in stain/varinish finish, door jamb framing shall be 45mm x x 40mm Kind died basen single rabbeled etop-wooden jamb complete wir kelled to the salish door and accessories. Provided 1-2mm His. 2 million in the salish door and accessories. Provided 1-2mm His complete wir will will will be a 25mm clear glass blade on 2.00 set/s  4.5.1 D worder coated aluminum frames and Accessories 18.00 sets 18.00 set/s	4.5.5	wooden door panel , kiln-dried Lauan solid wood framing & alternating solid wood core covered w/ 6mm thk. Marine plywood (class A) through a high compact machine press process in stain/varnish finish, door jamb framing shall be 45mm x 140mm TKD tanguile single rabbeted stop wooden jamb complete w/ locksets, hardware and accessories. Provide 10mm thk. x 100mm TKD tanguile solid wood louver	1.00	set/s												
in satis finish, complete will required hardware and ecosposition.  4.57 D. \$ (0.80m x 2.1m) 1.2mm this. clear double swing glass-door. Provide 1.1mm this. C 25mm this. Six Vertical pull-handle in satis finish, complete will required hardware and ecosposition.  4.58 D. 1.4 (0.75m x 2.1m) 5.hall be 4.4mm this. Swing type semi-sold wooder door panel will very glass plant, made from this. Main required hardware and ecosposition.  4.58 D. 1.4 (0.75m x 2.1m) 5.hall be 4.4mm this. Swing type semi-sold wooder door panel will very glass plant, made from this. Main required hardware and ecosposition.  4.59 D. 1.4 (0.75m x 2.1m) 5.hall be 6.2mm dear glass blade on experiment of the complete will required hardware and accessories. Provide of home this. A dispiration of the complete will require the provide stopp wooden jamb complete will colored the complete will require the provide stopp wooden jamb complete will require the provide will requi	4.5.6	-D4, D6 (0.90 m x 2.1m) 12mm thk. clear double swing glass	2.00	setis		•			•							
4.5.7 D-5.10,86m-x2-4m)-12mm-thk- clear double-owing glase-double-owing glase-double-oxer thinks. Set Vertical in S.8.5 Vertical both and in S.9.5 Vertical both and in S.9.5 Vertical with S.9.5 Vertical in State Initial, complete with required hardware and accessories.  4.5.8 D-14.10,75m-x2-4m) Shalt be 44mm thk. Swing type semi-oduble vacourn-treated kiln-dried-t-auan-solid-wood-framing-& alternating solid-wood-one covered wifems this. Marine-phywood-(clase A) through a high compact machine press-process-in statin-virsulin-frinish, door-jead-framing-balt-be-45mm-x4-45mm-kiln-dried-t-auan-solid-wood-raming-balt-be-45mm-x4-45mm-		in satin finish, complete w/ required hardware and							This item is	included in Pha	se 28 Expa	insion				
does-Provide-1-2mm-tike-C-28mm dia-SS Vertical-pull-handle in self-finish, complete w frequench fund/ware and accessories-  4-5.8 D14 (9.75m x 2-1m)-Shall be 4-4mm-tik-Swing-type-semi-solid wooden door panel w/view-glass-panel, made from double-versions from the standard from the s																
4.6.8 D-1.4 (3.75m.×2.1m) Shall be 4.4mm-thk. Swing-type-semi- solid wooden-door panel wir view glass-panel-mode from- double-vacuum treated kim-dried Lauan-solid wood framing &- alternating-solid-wood core covered w/ 5mm-thk. Marine- phywood (slices A) through a high-compact machine press- process in stain/vamish finish, door jam-b framing-shall be- 4.6mm x-4.46mm. Kim dried cause single rabbeted stop- wooden jam-b complete w-illockests, hardware and- accessories. Provide 10mm tikx. x-10mm TRO tanguile soliid- wood-louver-blades.  4.6. Windows including Frames and Accessories  8.7. Windows including Frames and Accessories  9. W-6 (3.0m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.1 powder coated aluminum frame complete w/ awning window system and fixed panels on top.  4.6.2 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-8 (6.6m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (3.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 powder coated uniminum frame complete w/ awning window system and fixed panels on top  W-12 (3.05m x 1.3m) Shall be 6.28mm clear glass blade on 4.6.5 powder coated uniminum frame complete w/ awning window system and fixed panels on top  W-12 (3.05m x 1.3m) Shall be 6.28mm clear glass blade on 4.6.5 powder coated uniminum frame complete w/ awning window system a	4.5.7	door. Provide 1.2mm thk. C 25mm dia. SS Vertical pull handle in satin finish, complete w/ required hardware and-		seus					This item is	included in Pha	se 2B Expa	nsion				
selid-wooden-door-panel-wi-view glass panel-, made from double-vaeuum treated-kilm-dired- Lauan solid-wood framing-8-alternating-solid-wood-core covered-wi-6mm thik. Marine-phywood-(class-A), through-a high-compast-machine-prese-process-in-stain-variesh-finish-, door-jamb-framing-shell-be-46mm-x-140mm-Kiln-dred-Lauan-single-rabbeted-stop-wooden-jamb-compited-wi-lockseth, hardware-and-accessories. Provide-10mm-thik-x-100mm-thik-x-x-100mm-	4.5.8		4.00	set/s												
double vaeuum treated kiin dried Laura selid wood dere overed wi- 8mm kih. Marine- phywood (class A), through a high-compact machine prese- precese in stain/varrish finish, door jamh Framing-shall be- 46mm x-140mm kiin dried-Laura-single rabbeted stop- wooden jamb-complete wi-looksets, hardware and- accessories. Provide 10mm kih. x 140mm TkD tanguile solid- wood-douver-blades.  4.6 Windows including Frames and Accessories  W-6 (3.0 m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.1 powder coated aluminum frame complete wi awning window system and fixed panels on top.  W-7 (4.2 m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.2 powder coated aluminum frame complete will awning window system and fixed panels on top  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete will awning window system and fixed panels on top  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete will awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete will awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete will awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete will awning window system and fixed panels on top  W-10 (3.0m x 0.6m) Shall be 6.28mm clear glass on 4.6.5 aluminum frame complete will awning window system and fixed panels on top  W-10 (3.0m x 0.6m) Shall be 6.28mm clear glass on 4.6.5 aluminum frame complete will awning window system and control			7.7													
alternating-solid-wood core-cevered-w/6mm-thk. Marine-phywood-(clause, A) through a high-compact mapchine prese-process in stain/variish finish, door jamb framing-shall be-46mm x 140mm Kiin dried Łauan single-rabbeted stop-wooden jamb complete wit-looksets, hardware and-accessories. Provide 10mm tilk. x 10mm TKD tanguile-solid-wood-louver blades.  4.6 Windows including Frames and Accessories  W-6 (3.0 m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete wit-awning window system and fixed panels on top.  W-7 (4.2 m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-8 (9.0 m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-8 (9.0 m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-9 (0.6 m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-9 (0.6 m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-9 (0.6 m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.01 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.01 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 5.00 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.01 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 5.00 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 5.00 set/s  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 5.00 set/s  W-10 (2.0 m x 0.6m) Shall be 1.2mm clear glass blade on 5.00 set/s																
plywood-(clases A) Harough -a high compact mackine press- process in stain/vamieh finish, door jamb framing shall be 46mm x 140mm Kiln died Lauen single rabbeted step- wooden jamb complete w/ locksets, hardware and- accessories. Provide 10mm kix. + 100mm Kib. anguile solid- wood-louver blades:  W-6 (3.0 m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.1 powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-7 (4.2m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.2 powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-8 (0.6 m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-8 (0.6 m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-7 (0.7 m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and fixed panels on top  W-10 (3.0 m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and control  W-12 (3.036m x 1.3m) Shall be 12mm clear glass on 1.00 set/s																
process-in-stain/vamish-finish,-door-jamb-framing-shall-be-45mm x-140mm X-140m		plywood (class A) through a high compact machine press														
46mm X-140mm Klin dried Lauan single rabbeted step-woeden jamb complete w/ locksete; hardvare and accessories. Provide 10mm thk. x 100mm TKD tanguile solid-woed-louver-blades.  4.6 Windows including Frames and Accessories  8.7 W-6 (3.0 m x 1.5 m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top.  8.7 W-7 (4.2 m x 1.5 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  8.8 W-8 (0.6 m x 1.5 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  8.8 (0.6 m x 1.5 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  8.9 W-8 (0.6 m x 1.5 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  8.0 W-10 (2.0 m x 0.6 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  9.0 W-10 (2.0 m x 0.6 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  9.0 W-10 (2.0 m x 0.6 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  9.0 W-10 (2.0 m x 0.6 m) Shall be 6.28mm clear glass blade on system and fixed panels on top.  10.0 Set/s  10.0 Set/s  10.0 Set/s  10.0 Set/s  10.0 Set/s		process in stain/varnish finish, door jamb framing shall be							i nis item is	inciudeo in Pha	se zo Expa	insion				
accessories. Provide 10mm thk. x 100mm TKD tanguile solid-wood-lower-blades.  4.6 Windows including Frames and Accessories  W-6 (3.0m x 1.5m) Shall be 6.28mm clear glass blade on yestem and fixed panels on top.  W-7 (4.2m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-8 (0.5m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-8 (0.5m x 1.5m) Shall be 6.28mm clear glass blade on system and fixed panels on top  W-10 (2.0m x 0.5m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.5m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and fixed panels on top  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on 4.6.6 aluminum frame complete w/ awning window system and control		45mm x 140mm Kiln dried Lauan single rabbeted stop														
### Weed leuver blades:  ### 4.6 Windows including Frames and Accessories  ### W-6 (3.0m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top.  ### W-7 (4.2m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.2 powder coated aluminum frame complete w/ awning window system and fixed panels on top  ### W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete w/ awning window system and fixed panels on top  ### W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  ### W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and fixed panels on top  ### W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and control  ### W-12 (3.305m x 1.3m) Shall be 12mm clear glass on 4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up																
4.6.1 Windows including Frames and Accessories  W-6 (3.0m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-7 (4.2m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-9 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.3 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and control  W-12 (3.305m x 1.3m) Shall be 1.2mm clear glass on 1.00 set/s																
W-6 (3.0m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-7 (4.2m x 1.5m) Shall be 6.28mm clear glass blade on 4.00 set/s  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 6.00 set/s  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on 6.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 9.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 9.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 9.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 9.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 9.00 set/s  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 9.00 set/s  W-10 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on 1.00 set/s  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on 1.00 set/s						T										
4.6.1 powder coated aluminum frame complete w/ awning window system and fixed panels on top.  W-7 (4.2m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (3.0m x 0.6m) Shall be 6.28mm clear glass blade on aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on aluminum frame complete w/ awning window system and control  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on  4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up	4.6															
4.6.2 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-8 (0.6m x 1.5m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on aluminum frame complete w/ awning window system and control  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on  4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up	4.6.1	powder coated aluminum frame complete w/ awning window system and fixed panels on top.	2.00	set/s												
4.6.3 powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window system and fixed panels on top  W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on aluminum frame complete w/ awning window system and control  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on  4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up	4.6.2	powder coated aluminum frame complete w/ awning window	4.00	set/s												
W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.4 powder coated aluminum frame complete w/ awning window system and fixed panels on top W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on aluminum frame complete w/ awning window system and control  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on 4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up	4.6.3	powder coated aluminum frame complete w/ awning window	6.00	set/s												
W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on 4.6.5 aluminum frame complete w/ awning window system and control  W-12 (3.305m x 1.3m) Shall be 12mm clear glass on 4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up	4.6.4	W-10 (2.0m x 0.6m) Shall be 6.28mm clear glass blade on powder coated aluminum frame complete w/ awning window	2.00	set/s												
W-12 (3.305m x 1.3m) Shall be 12mm clear glass on 1.00 set/s 4.6.6 aluminum frame with 100mm dia. speak-thru hole, roll up	4.6.5	W-11 (0.6m x 0.6m) Shall be 6.28mm clear glass blade on aluminum frame complete w/ awning window system and	3.00	set/s												
	4.6.6	W-12 (3.305m x 1.3m) Shall be 12mm clear glass on aluminum frame with 100mm dia. speak-thru hole, roll up	1.00	set/s												
		window aluminum slats mechanism and top box cover														
4.E FINISHES															-	
4.7 Floor Finish 289.04 sq.m	4.7	Floor Finish	289.04	sq.m	-	-	-	-	-	-		-	-	-	-	-

	BILL OF QUANTITIES    Item No.   Description   Qty   Unit   Material   Equipment   Cost   Cos														
								Mark-ups	in Percent	Tota	•	VAT		Total Cost	Unit Cost
Item No.	Description	Qty	Unit	Cost	Cost	Cost	Cost	ОСМ	Profit	%age	Value 10	11	Cost 12	13	14
		1	2	3	4	5	6	7	8	9	7+8	5% x (6+ 10)	10+11	6 + 12	(13) / (1)
4.7.1	(FF-1) 600 x 600mm Polished CeramicTiles	247.64	sq.m						included in Phas			(			<u> </u>
	(FF-3) 300 x 300mm UnGlazed Ceramic Tiles	17.00	sq.m												-
4.7.2	(FF-3) 300 x 300mm Glazed Ceramic Tiles	22.00	sq.m												-
	(FF-5) Straight to finish concrete w/ floor hardener	2.40	sq.m												-
	Wood edge	50.00	lm					This item is	included in Phas	e 2B Exp	ansion				
	Wall Finishes	291.26	sq.m	-	-	-	-	-	-		-	-	-	-	-
	(WF-2) Semi-gloss acrylic water-based interior paint	172.94	sq.m								-	-	-	-	-
	(WF-3) 300mm x 300mm glazed ceramic tile	118.32	sq.m								-	-	-	-	-
	Ceiling Finishes  Gypsum board with framing	37.80 37.80	sq.m					+	included in Phas	-					
	Glass Wall	43.05	sq.m		1		T .	i nis item is	included in Phas	se zo exp	ansion	1	T		I
	FULL GLASS PARTITION (Interior) 6mm thk tempered glass-	43.05	sq.m			l		1					I		
	Frameless frame with U-Shaped frame support with sealant	10.00						This item is	included in Phas	se 2B Exp	ansion				
	<del>(D3-D8)</del>														
4.11	Others: Paint and Coatings	1.00	lot												
4.11.1	Painting including Steel Trusses, and other Metals	1.00	lot												
4.F	SPECIALTIES														
4.12	Toilet and Bath	1.00	lot												
4.12.1		1.00	set/s												
-	Mirror	4.50	sq.m												
	Toilet Partition	5.00	set/s												
	Pantry	1.00	lot												
4.13.1	Pantry	1.00													
24.0	Other work items not mentioned in item 4.0 but necessary	/ to complete (Plea	se identify)												
21.0	FIRE PROTECTION SYSTEM FIRE PROTECTION DISTRIBUTION MATERIALS	10.00	unito												
	Fire Extinguisher 4.5 Kg - Class ABC Dry Chemical	9.00	units pc/s												
	Fire Extinguisher 4.5 Kg - Class ABC Dry Chemical  Fire Extinguisher 4.5 Kg - Carbon Dioxide (CO2)	1.00	pc/s pc/s												
	Miscellaneous and Consumable Materials	1.00	lot												
	Other work items not mentioned in item 21.1 but necessary														
	to complete (Please identify)														
22.0	PLUMBING WORKS														
22.A	Storm & Drainage PVC Pipe Storm Drainage Lines / Weepholes / Gutter Drain	618.00	Lin.m												
	200 mm ØRCP Pipes, 1m Length	48.00	length												
	150 mm Ø PVC Pipes, Series 1000	12.00	length												
	100 mm Ø PVC Pipes, Series 1000	43.00	length												
22.2		4.00	nos.												
	600 x 600 mm Catch Basin with Grating														
	Condensate Drains	192.00	lin.m												
	50 mm Ø PVC Blue Pipes	3.00	length												
	32 mm Ø PVC Blue Pipes	6.00	length												
	25 mm Ø PVC Blue Pipes	23.00	length												
	Rubber Insulation	98.00	lin.m												
	50 mm Ø x 2m Length x 25 mm Thick 32 mm Ø x 2m Length x 25 mm Thick	5.00 9.00	pc/s pc/s					+	1	1	+				1
	25 mm Ø x 2m Length x 25 mm Thick	35.00	pc/s pc/s								1				1
	Floor Clean-out ( Brass)	24.00	pc/s pcs												
22.5.1		2.00	pc/s												
	100 mm Ø	13.00		1											
	75 mm Ø	3.00	-												
	50 mm Ø	3.00	pc/s												
	25 mm Ø	3.00	<u> </u>												
	Floor Drain (SS with insect proof)	13.00													
	50 mm Ø	13.00													
	Ceiling Clean-out	4.00													
	100 mm Ø	2.00	_	1				-	1	+	1				
	25 mm Ø Hanger / Brackets / Supports / Concrete Saddle	2.00													
	Hanger / Brackets / Supports / Concrete Saddle   200 mm Ø	210.00 36.00													
22.8.1	ע ווווו טטע	30.00	pc/s		1	l	1	L	1		1	l		1	L

					BILL OF	QUANT	ITIES								
				Matarial	Ei	Labor	Estimated Direct	Mark-ups	in Percent	Tota	l Mark Up	VAT	<b>Total Indirect</b>	Total Cost	Unit Cost
Item No.	Description	Qty	Unit	Material Cost	Equipment Cost	Labor Cost	Cost	ОСМ	Profit	%age	Value		Cost		
			0							_	10	11	12	13	14
		1	2	3	4	5	6	7	8	9	7+8	5% x (6+ 10)	10+ 11	6 + 12	(13) / (1)
	150 mm Ø	39.00	pc/s												
22.8.3	100 mm Ø	63.00	pc/s		_							-			
	75 mm Ø	2.00	pc/s												
22.8.5		34.00	pc/s												_
	32 mm Ø	6.00	pc/s												
	25 mm Ø	30.00	pc/s												_
	Sewer and Vent Lines	456.00	Lin.m												4
	150 mm Ø PVC Pipes Series 1000	12.00	length												
	100 mm Ø PVC Pipes Series 1000	14.00	length												
	75 mm Ø PVC Pipes Series 1000	5.00	length												
	50 mm Ø PVC Pipes Series 1000	45.00	length												
	Miscellaneous / Consumables	1.00	lot												
	Solvent Cement	2.00	gal	·											
22.10.2	Epoxy A&B	2.00	gal												
22.10.3	Cutting Saw Blade	2.00	pcs												
22.10.4	G.I Wire #16	2.00	kgs												
22.10.5	Welding Rod	2.00	box												
22.10.6	Gravel / Sand bedding works	2.00	cu.m												
22.B	Water Supply System														
22.11	Potable Waterline, PPR Pipe (PN-20), Cold Waterline	498.00	Lin.m												
	65 mm Ø	6.00	lgth												
22.11.2	50 mm Ø	6.00	lgth												
22.11.3	40 mm Ø	3.00	lgth												1
22.11.4	32 mm Ø	25.00	lgth												
	25 mm Ø	18.00	lgth												
	20 mm Ø	15.00	lgth												+
	15 mm Ø	10.00	lgth												
	Potable Waterline, PPR Pipe (PN-20), Hot Waterline	24.00	Lin.m												
	15 mm Ø	4.00	lgth												
	G.I. Pipe, Sch. 40	18.00	Lin.m												
	65 mm Ø x 6 m Length	3.00	lgth												+
	Hanger / Brackets / Supports / Concrete Saddle	204.00	pcs												
	65 mm Ø	18.00	pc/s												
	50 mm Ø	12.00	pc/s												+
	40 mm Ø	6.00	pc/s												+
	32 mm Ø	44.00	pc/s pc/s						1			1			+
	25 mm Ø	36.00	pc/s pc/s						+	+		+			+
	20 mm Ø	30.00	pc/s pc/s		1		1		1	+		+			+
	15 mm Ø	28.00			+				-			+			+
			pc/s		+				-			+			+
	Teplon Tape	1.00	box												
22.C	Valves and Water Control	04.05													
	Valves and Water Control	24.00	pcs												_
	65 mm Ø (flanged type) Gate Valves	1.00	pc/s		_		+		1	-		+			+
	50 mm Ø (Threaded type) Gate Valves	1.00	pc/s				1		-	1		+			+
	40 mm Ø (threaded type) Gate Valves	1.00	pc/s				1		-			+			+
	32 mm Ø ( threaded type) Gate Valves	3.00	pc/s		+				ļ	+		1			+
	25 mm Ø ( threaded type) Gate Valves	1.00	pc/s						1						1
	20 mm Ø ( threaded type) Gate Valves	7.00	pc/s		1							1			
	15 mm Ø ( threaded type) Gate Valves	1.00	pc/s						1						1
22.15.8	65 mm Ø Check Valves	1.00	pc/s												
22.15.9		1.00	pc/s												
22.15.10	Water Hammer Arrester	7.00	pc/s												

				E	BILL OF	QUANT	ITIES								
						1		Mark-ups	in Percent	Tota	l Mark Up	VAT	Total Indirect	T-4-1 C4	Unit Coot
Item No.	Description	Qty	Unit	Material Cost	Equipment Cost	Labor Cost	Estimated Direct Cost	ОСМ	Profit	%age	Value	VAT	Cost	Total Cost	Unit Cost
		1	2	3	4	5	6	7	8	9	<b>10</b> 7+8	11 5% x (6+ 10)	<b>12</b> 10+ 11	13 6 + 12	14 (13) / (1)
22.D	Plumbing Fixtures & Other Accessories						-	-	_			( )		¥ <u>-</u>	(15); (1)
	Water Closet & Bidet	7.00	sets												
	Water Closet Flash type w/ complete accessories and bidet-														
22.16.1		4.00	sets												
22.16.2	Water Closet Flash type w/ complete accessories and bidet - Type 2	1.00	sets												
	Water Closet Tank type w/ complete accessories and bidet	2.00	sets												
	Lavatory w/ Faucet & P-Trap w/ complete accessories	1.00	lot												
	Countertop - Mounted (Double Basin)	2.00	sets												
	Wall - Mounted (Single Basin) Faucet for Wash Basins	3.00 7.00	sets pc/s												
	Urinal with complete acessories	3.00	sets												+
	Kitchen Sink with complete accessories	1.00	pc/s												
	Grease Trap, 5 GPM	1.00	pc/s												
22.17.7	Slop Sink with complete accessories	1.00	unit												
	Hose Bibb	2.00	pc/s												1
	Shower Head w/ complete accessories Electric Water Heater, EWH/1, EWH/2 Instantaneous	2.00	sets												
22.17.10 22.E	Singlepoint Type 3.5 kW, 230V, 1-Phase (1Ø), 60Hz  Pump and Tank Schedule	2.00	units												
22.18.1	Rainwater Harvesting Tank, RWT/1	1.00	unit					This item is	included in Pha	зе 2В Ехра	nsion				
	749 Gallon Capacity								included in Pha						
	Reinforced Concrete								included in Pha						
22.18.2	Submersible Pump, SP/1	1.00	units						included in Pha						
	Electric Motor (Close Coupled) Drive 15 GPM x 85 ft. TDH; 0.5 Hp, 1500 RPM								included in Pha included in Pha						
	230V, 1-Phase (1-Ø), 60Hz								included in Pha				-		
22.18.3	Submersible Pump, SP/2	1.00	unit						included in Pha						
	Electric Motor (Close Coupled) Drive								included in Pha	•					
	15 GPM x 85 ft. TDH; 0.5 Hp, 1500 RPM							This item is	included in Pha	se 2B Expa	nsion				
	230V, 1-Phase (1-Ø), 60Hz								included in Pha						
	Valves and Water Control								included in Pha						
	Check Valve, 32 mm Ø (for SP/1)	1.00	pe/s						included in Pha included in Pha						
	Check Valve, 32 mm Ø (for SP/2) Gate Valve, 32 mm Ø (for SP/1)	1.00 1.00	pe/s pe/s						included in Pha						
	Gate Valve, 32 mm Ø (for SP/2)	1.00	pc/s						included in Pha	•					
	Miscellaneous / Consumables	1.00	let						included in Pha						
22.19	Pipe Connectors, Fittings and Accessories	1.00	lot												
22.20	Testing Works (Leak and Gravity Test)	1.00	lot												
	Other work items not mentioned in item 22.0 but necessary	y to complete (Ple	ase identify)												
23.0 23.A	HEATING, VENTILATING AND AIRCONDITIONING SYS	STEM													
	Split Type Airconditioning Units (Inverter type)			For Phase 2B											
	ACCU 1 / FCU 1-	4.00	unit/s	. 5. 1 11030 20	V	Y		This item is	I included in Pha	se 28 Fxrs	nsion	1			<u> </u>
	Type : Wall Mounted			For Phase 2B											
	Gooling Capacity: 5.3 Kw (1.5 TR )								included in Pha						
	Electrical Capacity : 2.2 kw, 230V, 1Ph, 60Hz							This item is	included in Pha	se 28 Expa	nsion	4			Y
	ACCU 2/FCU 2	3.00	unit/s	For Phase 2B				V/							
	Type: Ceiling Cassette								included in Pha	•					
	Cooling Capacity: 10.6 Kw (3.0 TR.) Electrical Capacity: 2.8 kw, 230V, 1Ph, 60Hz-								included in Pha included in Pha	•••••					
	ACCU 3 / FCU 3	1.00	unit/s	For Phase 2B				rina Herri IS	monuped m r fla	SC EN EXPR	natur				
	Type: Wall Mounted	1.80	0.110	11.1030 25	V	1		This item is	included in Pha	e 2B Expa	nsion	1			le constitution de la constituti
	Cooling Capacity: 3.5 Kw (1 TR )								included in Pha						
	Electrical Capacity : 2.2 kw, 230V, 1Ph, 60Hz							This item is	included in Pha	зе 2В Ехра	nsion				
	ACCU 4 / FCU 4	1.00	unit/s	For Phase 2B											
	Type: Wall Mounted								included in Pha						
	Cooling Capacity : 3.5 Kw (1 TR.)								included in Pha						
	Electrical Capacity : 2.2 kw, 230V, 1Ph, 60Hz  ACCU 5 / FCU 5	4.00	unita	For Phase 22				rnis item is	included in Pha	se zb Expa	nsion				
	Type: Wall Mounted	1.00	unit/s	For Phase 2B	V	V/////////////////////////////////////	Y	This item is	included in Pha	a 28 Evr-	osioo	1		V	Y
	Cooling Capacity: 3.5 Kw (1 TR )								included in Pha						
	Electrical Capacity : 2.2 kw, 230V, 1Ph, 60Hz								included in Pha						
	ACCU 6 / FCU 6	1.00	unit/s	For Phase 2B											

					BILL OF	QUANT	ITIES								1
						1		Mark-ups	in Percent	Tota	al Mark Up		Total Indirect	I	
Item No.	Description	Qty	Unit	Material	Equipment	Labor	Estimated Direct	осм	Profit	1	Value	VAT	Cost	Total Cost	Unit Cost
		·		Cost	Cost	Cost	Cost	ОСМ	Profit	%age	10	11	12	13	14
		1	2	3	4	5	6	7	8	9	7+8	5% x (6+ 10)	10+ 11	6 + 12	(13) / (1)
	Type: Ceiling Cassette								included in Pha						
	Cooling Capacity: 7.0 Kw ( 2.0 TR )  Electrical Capacity: 2.0 kw, 230V, 1Ph, 60Hz								included in Pha included in Pha						
	(Support, Pad, Electrical Connections Etc.)								included in Pha included in Pha						
	VENTILATION EQUIPMENTS (EXHAUST FAN)						-				J. C.			-	
	Toilet Exhaust Fan TEF 1 - Ceiling Casette 90 CMH	4.00	unit/s												
23.8.1	Type: Ceiling Casette														
	Air Flow Rate: 90 CMH x 0.5 in of Water														
	Electrical Capacity: 0.011 kw, 220V, 1Ph, 60hz	4.00	***												
	TEF 2 Ceiling Casette 180 CMH Type: Ceiling Casette	1.00	unit/s												
	Air Flow Rate: 180 CMH x 0.5 in of Water														+
	Electrical Capacity: 0.024 kw, 220V, 1Ph, 60hz														1
	TEF 3 Ceiling Casette 270 CMH	1.00	unit/s												
	Type: Ceiling Casette														
	Air Flow Rate: 270 CMH x 0.5 in of Water									1				1	1
	Electrical Capacity: 0.033 kw, 220V, 1Ph, 60hz	4.00	umit/-												
	EF 1 Wall Mounted 3200 CMH Type: Wall Mounted	1.00	unit/s												
	Air Flow Rate: 3200 CMH									+					<del>                                     </del>
	Electrical Capacity: 0.13 kw, 220V, 1Ph, 60hz									1					
23.C	AIR CONDITIONING PIPING WORKS														
23.13	Multi Split Refrigerant Piping system Copper Pipes - Hard Dra	264.00	Lin.m												
23.13.1	15.9 mm (5/8") diameter x 6 m Length	22.00	lght												
	9.5 mm (3/8") diameter x 6 m Length	22.00	lght												
23.13.3	Copper pipe fittings	1.00	lot												
23 14	Closed Cell Elastomeric (CCE) Rubber Insulation - Class 1 x 25 mm thick	264.00	Lin.m												
	15.9 mm (5/8") diameter x 2 m Length	66.00	lght												
	9.5 mm (3/8") diameter x 2 m Length	66.00	Ight												
	AIR VENT SYSTEM DUCTING WORKS	00.00	igit												
23.15	Air Vent System	1.00	lot												
	100 mm Ø PVC Pipes Series 1000	4.00	lengths												
	100 mm Ø Flexible Duct Connector	1.00	lengths												-
	Extras for bends, offset and other fittings  100 mm Ø Backdraft Damper	1.00 6.00	lot pc/s												
	100 mm Ø Ventilation Pipe Hood	6.00	pc/s pc/s												
	Testing, Commissioning, Hand-Over	1.00	lot												
	Other work items not mentioned in item 23.0 but necessary														
24.0	ELECTRICAL WORKS														
24.A	Electrical Power														
	Supply, delivery and installation of lightning protection and grounding system including equipment, devices, wiring,														
	roughing ins and necessary items to complete installation as														
	shown on drawings and as described in technical														
	specifications	1.00	lot												
	Ground Rod Copper Clad Steel 20mm dia X 3000 mm long 30mm2 BCW	2.00 9.00	Set/s Im							+				<del>                                     </del>	+
	22mm2 BCW	9.00	lm							1				1	<u> </u>
	25 mm Dia PVC Pipe	6.00	Lgth							1					
	Exothermic Weld Connector	2.00	Pcs.												
24.1.6	Solderless Connector	2.00	Pcs.							1					
2417	Pre-Drilled Grounding Bus bar (Inclusive of Wall Mounting Bracket with Poly-Insulator)	2.00	Set/s											1	
	Low Voltage Electrical Distribution	2.00	061/3							+					<u> </u>
	Supply, installation, termination and commissioning of low														
	voltage electrical distribution conductors and cables, conduits,														
	connectors, fittings, enclosed circuit breakers including termination accessories and all necessary items to complete														
	the works														
	Wires and Cables	3,905.00	Lin.m												
	150mm² THHN Wire	114.00	lm												
	60mm² THHN Wire	60.00	lm							1					
	50mm² THHN Wire 38mm² THHN Wire	26.00	lm lm							+				<del> </del>	-
	30mm² THHN Wire	60.00	lm Im							+				<del>                                     </del>	+
24.2.5	JOHN THIN WIE	-	uff	l		1	1	1	1		1	1	1	1	

					BILL OF	QUANT	ITIFS								
								Mark-ups	in Percent	Tota	l Mark Up		Total Indirect		
Item No.	Description	Qty	Unit	Material Cost	Equipment Cost	Labor Cost	Estimated Direct Cost	осм	Profit	%age	Value	VAT	Cost	Total Cost	Unit Cost
											10	11	12	13	14
24.2.0	OO2 THUNDAY	1 25.00	2	3	4	5	6	7	8	9	7+8	5% x (6+ 10)	10+ 11	6 + 12	(13) / (1)
	22mm² THHN Wire 14mm² THHN Wire	25.00	lm Im												
	8.0mm² THHN Wire	-	lm												
	5.5mm² THHN Wire	420.00	lm												
24.2.10	3.5mm² THHN Wire	3,200.00	lm												
	Raceways	1,074.00	Lin.m												
	90 mm Ø PVC Conduit	7.00	lgth												
	65 mm Ø PVC Conduit	19.00	lgth												
	50 mm Ø IMC Conduit 40 mm Ø IMC Conduit	20.00	lgth lgth						+			-			
	25 mm Ø IMC Conduit	15.00	lgth												
	32 mm Ø IMC Conduit	-	lgth												
	20 mm Ø IMC Conduit	-	lgth												
	15 mm Ø IMC Conduit	-	lgth												
	25 mm Ø PVC Conduit	57.00	lgth												
	20 mm Ø PVC Conduit	240.00	lgth		-				-	-		1			
	15 mm Ø Flexible Metallic Conduit	75.00	lm		+					+		-			
	15 mm Ø FMC Straight Connector  Low Voltage Distribution & Circuit Protective Devices	150.00 9.00	pcs Assy												
	ECB, 600AT, 3P, 230V in NEMA 3R	1.00	Assy												
	ECB, 40AT, 2P, 230V in NEMA 3R	3.00	Assy												
	ECB, 30AT, 2P, 230V in NEMA 3R	5.00	Assy												
	Switchboards and Panelboard	3.00	Assy												
24.5.1	Panel: MDP-1 in NEMA 1 - Surface Mounted	1.00	Assy												
	Main: 1-600AT, 600AF, 3P, 230V, 22KAIC														
	Branches: 1-125AT, 225AF, 2P, 230V, 22KAIC 1-150AT, 225AF, 3P, 230V, 22KAIC								+			1			
	1-80AT, 100AF, 3P, 230V, 22KAIC														
	2-50AT, 50AF, 3P, 230V, 22KAIC														
	1-160AT, 225AF, 3P, 230V, 22KAIC														
24.5.2	Panel: PPACU in NEMA 1 - Surface Mounted	1.00	Assy												
	Main: 1-150AT, 225AF, 3P, 230V, 22KAIC														
	Branches: 9-30AT, 50AF, 2P, 230V, 10KAIC								-						
24 5 2	3-40AT, 50AF, 2P, 230V, 10KAIC Panel: LPA in NEMA 1 - Surface Mounted	1.00	Assy												
24.5.3	Main: 1-80AT, 100AF, 3P, 230V, 18KAIC	1.00	Assy												
	Branches: 24-20AT, 50AF, 2P,230V, 10KAIC														
24.6	Wiring Devices and Boxes	310.00	sets												
	Duplex Convenience Outlet, 15A, 240V, Wall or Table														
	Mounted	33.00	Set/s												
	Simplex Convenience Outlet, 15A, 240V  Duplex Convenience Outlet, 15A, 240V, Floor Mounted	6.00 1.00	Set/s Set/s						+			-			
	One Way Switch-One Gang	13.00	Set/s												
	One Way Switch-Two Gang	8.00	Set/s												
24.6.6	One Way Switch-Three Gang	3.00	Set/s												
	Three Way Switch-One Gang	1.00	Set/s												
	Three Way Switch-Two Gang	2.00	Set/s									-			
	Utility Box	67.00	Set/s									1			
	Junction Box Square Box	150.00 14.00	Set/s Set/s		-				1						
	Pull Box ( 6" X 12" X 12")	12.00	Set/s Set/s		+				+	1		+			
	Lighting Devices	143.00	Sets												
24.7.1	4" Dia. Recessed Type Downlight with T-20W CFL (Daylight)	78.00	Set/s							1		1			
2472	2'x4' Commercial Recessed Type with Aluminum Reflector in 2-9W Straight LED Fixture	28.00	Set/s												
24.7.2	Surface Mounted Fluorescent Luminaire, 1-T5 with Diffuser	27.00	Set/s						1						
	Battery Pack Emergency Lights with 1x8W LED Lamp, Nickel	200							1			1			
24.7.4	Cadmium, 3 Hours Duration	8.00	Set/s												
0475	Ceiling Mounted Exit Signage with 2W LED Luminaire Complete with Emergency Battery Pack, 3 Hours Duration	2.00	Co+/-												
	Miscellaneous	2.00 1.00	Set/s lot												
24.0	Hangers and Supports (Steel Rods, Expansion Bolts, C/Strut-	1.00	101												
	Channels, Conduit Straps, and other necessary items to														
04.0.4	support installations of panel boards, ECB's, conduit runs and	4.00	le+						1						
24.8.1	wiring devices)	1.00	lot			[			1	1		1			l

					BILL OF	QUANT	ITIFS								
								Mark-ups	in Percent	Tota	l Mark Up	\/A=	Total Indirect	T. 10 1	
Item No.	Description	Qty	Unit	Material Cost	Equipment Cost	Labor Cost	Estimated Direct Cost	осм	Profit	%age	Value	VAT	Cost	Total Cost	Unit Cost
		4	0								10	11 5% x (6+ 10)	12	13	14
	Hardwares and Consumables(Butane, Cutting Discs, Drill	1	2	3	4	5	6	7	8	9	7+8	5% X (6+ 10)	10+ 11	6 + 12	(13) / (1)
	Bits, Electrical Tapes, Mica tubes, and other necessary items														
	to be consumed to assure correct installations of Panels,														
	conduit runs and wiring devices)	1.00	lot												
	Concrete Encasement	1.00	lot												
	Concrete Pedestal/Private Pole (Inclusive of Cast in Place Co Testing and Commisioning	1.00	lot												
24.9	Other work items not mentioned in item 23.0 but necessary														
25.0	COMMUNICATIONS	to complete (i lea	se identity)												
25.A	Telephone and Data Structured Cabling														
25.1	Equipment	3.00	units												
	Intermediate Distribution Frame (Inclusive of Patch Panels,														
05.4.4	Netwok Switches, PoE Switches, Patch Cords and other accessories for complete installation)	4.00	I Indian												
25.1.1	Telephone Terminal Cabinet(TTC) ( patch panel, switches,	1.00	Units												
	hubs, cable managers, cords and other necessary														
	accessories to complete installation)	1.00	Units												
	Uninterrruptible Power Supply (UPS)	1.00	Units												
	Wires, Raceways, Boxes	1.00	lot												
	4PR Cat6 UTP Cable	860.00	lm Leath							1					
	25mm Dia PVC 20mm Dia PVC	50.00 42.00	lgth lath		_				-	+					
	Conduit Connectors and Fittings	1.00	lgth lot							1		1			
	Utility Box	22.00	Set/s												
	Pull Box 4" X 6" X 6"	1.00	Set/s												
	Wiring Devices	24.00	sets												
	Data Outlet (Wall or Furniture Mounted)	20.00	Set/s												
25.3.2	Telephone/Data Outlet (FloorMounted)	2.00	Set/s												
	Telephone/Data Outlet (Wall or Furniture Mounted)	2.00	Set/s												
	Miscellaneous	1.00	lot												
25.4.1	Connecting cords, devices and adapters	1.00	lot												
	Hangers and Supports (Steel Rods, Expansion Bolts, Strut- Channels, Conduit Straps, and other necessary items to														
	support installations of distribution frames, wiring boxes,														
25.4.2	conduit runs and wiring devices)	1.00	lot												
	Hardwares and Consumables(Butane, Cutting Discs, Drill														
	Bits, Electrical Tapes, Mica tubes, and other necessary items to be consumed to assure correct installations of Distribution														
	Frames, Telephone Cabinets, conduit runs and wiring														
	devices)	1.00	lot												
25.B	VIDEO SURVEILANCE (CLOSED CIRCUIT TELE-VISION)														
	Wires/Cables, Raceways, Boexes	1.00	lot												
	4PR Cat6 UTP Cable 20mm Dia PVC	300.00 72.00	lm Ight		-					1		1			-
	15mm Dia Flexible Metallic Conduit	5.00	mtrs									1			
	15mm Dia Flexible Metallic Conduit Connector	10.00	pcs												
	Conduit Connectors and Fittings	1.00	lot												
25.5.6	Junction Box	10.00	Set/s												
	Pull Box 4" X 6" X 6"	1.00	Set/s	_											
	Devices	10.00	sets												
25.6.1		10.00	Set/s												
20.0	Other work items not mentioned in item 25.0 but necessary	to complete (Plea	se identify)												
	ELECTRONIC SAFETY AND SECURITY														
	FIRE DETECTION AND ALARM SYSTEM Wires, Raceways, Boxes	1.00	lot												
	#16 AWG Shielded Circuit Integrity Cable (CIC)	250.00	Im												
	25 mm Dia IMC	65.00	lgth												
	15mm Dia Flexible Metallic Conduit	8.00	mtrs												
	15mm Dia Flexible Metallic Conduit Connector	16.00	pcs												
	Conduit Connectors and Fittings	1.00	lot			-		-							
	Junction Box	16.00	Set/s												
	Utility Box	7.00	Set/s												
	Wiring Devices	23.00	sets												
	Addressable Smoke Detector  Manual Call Point	16.00	Set/s							1		1			
	Horn and Strobe Light	3.00 4.00	Set/s Set/s		-					1		1			
20.2.3	Other work items not mentioned in item 26.0 but necessary														
	Care. Work home not mondioned in hem 20.0 but necessary	complete (i lea	oo lacitiiy)												

					BILL OF	QUANT	ITIES								
				Material	Equipment	Labor	Estimated Direct	Mark-ups	in Percent	Tota	l Mark Up	VAT	Total Indirect	Total Cost	Unit Cost
Item No.	Description	Qty	Unit	Cost	Cost	Cost	Cost	ОСМ	Profit	%age	Value	****	Cost	10141 0001	0.111 000t
				COSt	COSt	Cost	COSt	OCIVI	Tione	70age	10	11	12	13	14
		1	2	3	4	5	6	7	8	9	7+8	5% x (6+ 10)	10+ 11	6 + 12	(13) / (1)
	Grand Total Cost														