

Department of Science and Technology  
**PHILIPPINE TEXTILE RESEARCH INSTITUTE**  
**APPROVED AGENCY ESTIMATE (AAE)**

PROJECT TITLE : **SUPPLY OF LABOR, MATERIALS, TOOLS, EQUIPMENT, AND CONSTRUCTION OF PROJECT TITLED: REHABILITATION AND RETROFITTING OF NATURAL FIBER PROCESSING CENTER PHASE IV**  
 LOCATION : **PTRI Compound, Bicutan Taguig City**  
 PROJECT DURATION : **240 CALENDAR DAYS**

**SCOPE OF WORKS : BILL OF QUANTITIES**

Item	Description	unit	Qty	Material	Labor	Total Unit Cost	Total Amount
<b>A</b>	<b>Repair and Renovation of NFPC Extension Phase III</b>						
<b>1.0</b>	<b>PRELIMINARIES</b>						
1.1	Site Preparation	lot	1				
1.2	Mobilization and Demobilization	lot	1				
1.3	Temporary Facilities	lot	1				
1.4	Temporary Utilities	lot	1				
1.5	Safety Tools and Requirements	lot	1				
1.6	Site Management and Supervision	lot	1				
1.7	Delivery and Equipments	lot	1				
	<b>TOTAL</b>						
<b>2.0</b>	<b>ARCHITECTURAL WORKS</b>						
<b>2.1</b>	<b>DOORS</b>						
	D02: 1.6x2.1	set	1				
	D04B: 0.9x2.5	set	1				
	D05: 0.9x2.1 Wooden Flush	set	4				
	D6: 1.4x2.4 Wooden Louver	set	2				
	D06: 2.7x2.1	set	2				
	D07: 1.6x2.5	set	1				
	D08: 0.8x2.1 Painted Wooden Flush Door	set	3				
	D08b: 0.7x2.1 Painted Wooden Flush Door	set	3				
<b>2.2</b>	<b>WINDOWS</b>						
	W1: 1.8x1.5	set	1				
	W1B: 1.4x1.5	set	1				
	W2: 1.8x1.15	set	2				
	W4: 4.4x2.8	set	1				
	W5: 2.251x2.8	set	1				
	W7: 0.6x2.4	set	1				
	W8: 0.9x0.6	set	1				
<b>2.3</b>	<b>EXTERIOR AND INTERIOR CLADDING</b>						
	WPC	lm	255				
	<b>subtotal</b>						
<b>2.4</b>	<b>FLOOR FINISHING</b>						
	30cmx60cm Wall Tiles Bathroom	m <sup>2</sup>	73.60				
	60cmx60cm Floor Tiles -Bathroom	m <sup>2</sup>	17.70				
	60cmx60cm Non Skid Exterior Floor	m <sup>2</sup>	111.80				
	60x60cm Vitrified Floor Tiles (Balcony and Fire Exit)	m <sup>2</sup>	337.75				
	60x60cm Semi Homogenous	m <sup>2</sup>	352.20				
	Epoxy Non Skid	m <sup>2</sup>	299.20				
	<b>subtotal</b>						
<b>2.5</b>	<b>CEILING</b>						
	C01-Fire MR Gypsum	sq.m	107.40				
	C02-MR Gypsum	sq.m	181.30				
	C03 Ceiling Panel Board	sq.m	97.80				
	C04 Spandrel	sq.m	18.80				
	<b>subtotal</b>						
<b>2.6</b>	<b>PAINTING WORKS</b>						
	Painting Exterior Wall	m <sup>2</sup>	1,681.60				
	Doors	m <sup>2</sup>	160.86				
	<b>subtotal</b>						
	<b>TOTAL</b>						
<b>3.0</b>	<b>STRUCTURAL WORKS</b>						
<b>3.1</b>	<b>STRUCTURAL CONCRETE WORKS (Rebar and Concrete)</b>						
	Slab RD	lot	1				
	3rd Floor Beams	lot	1				
	3rd Floor Stairs	lot	1				
	<b>subtotal</b>						
<b>3.2</b>	<b>FORMWORKS AND SCAFFOLDINGS</b>						
	Beams	m <sup>2</sup>	200				
	Slabs	m <sup>2</sup>	185				
	<b>subtotal</b>						
	<b>TOTAL</b>						
<b>4.0</b>	<b>FIRE PROTECTION WORKS</b>						
<b>4.1</b>	<b>Basic Fire Protection Materials and Method</b>						
	<b>Supply and installation of BI Pipes and fittings Sch. 40,</b>						
	including accessories, hangers, supports, markings, painting, and other miscellaneous item in accordance to the specification required to complete the system and make it operational.						
	100 mm diameter	Lm	24				
	80 mm diameter	Lm	24				
	65 mm diameter	Lm	18				
	50 mm diameter	Lm	42				
	40 mm diameter	Lm	24				
	32 mm diameter	Lm	12				
	25 mm diameter	Lm	204				

			<b>Supply and Installation of Elbow 90</b>						
			100 mm diameter Groove	no.	8				
			80 mm diameter Groove	no.	4				
			50 mm diameter	no.	4				
			40 mm diameter	no.	12				
			25 mm diameter	no.	70				
			<b>Supply and Installation of Tee</b>						
			100mm dia. (Groove)	no.	2				
			80mm dia. (Groove)	no.	4				
			50mm dia.	no.	7				
			40mm dia.	no.	8				
			32mm dia.	no.	18				
			25mm dia.	no.	34				
		<b>4.2</b>	<b>Supply and Installation of Tee Reducer</b>						
			100mm x 50mmdia. (Groove)	no.	1				
			50mm x 25mmdia.	no.	1				
			40mm x 25mmdia.	no.	1				
			32mmX 25mm dia.	no.	4				
			<b>Supply and Installation of Reducer</b>						
			80mm x 63mm dia.	no.	4				
			63mm x 50mm dia.	no.	4				
			50mm x 40mm dia.	no.	5				
			40mm x 25mm dia.	no.	9				
			40mm x 32mm dia.	no.	2				
			32mm x 25mm dia.	no.	34				
			<b>MECHANICAL TEE</b>						
			50mm x40mm dia.	no.	3				
			50mm x32mm dia.	no.	7				
			63mm x32mm dia.	no.	7				
			63mm x40mm dia.	no.	3				
			80mm x50mm dia.	no.	2				
			80mm x32mm dia.	no.	1				
			<b>RIGID COUPLING</b>						
			100mm dia.	no.	14				
			80mm dia.	no.	11				
			63mm dia.	no.	8				
			50mm dia.	no.	6				
			<b>FLEXIBLE COUPLING</b>						
			80mm dia.	no.	11				
			<b>SLIP-ON FLANGE</b>						
			100mm dia.	no.	10				
			<b>subtotal</b>						
		<b>4.3</b>	<b>SPRINKLER HEADS</b>						
			Supply & Installation of Sprikler heads including ceiling plates, wrenches, escutcheon plates and all other accessories required to complete the system						
			Upright (Quick Response) 155F	no.	4.00				
			Pendent (Quick Response) 155F	no.	64.00				
			Sidewall (Standard Response) 155F	no.	2.00				
			<b>subtotal</b>						
		<b>4.4</b>	<b>Supply and installation of Floor Control Valve Assembly</b>						
			80mm dia. Butterfly valve with Supervisory Switch	no.	2.00				
			Pressure Gauge	no.	2.00				
			Water Flow Switch	no.	2.00				
			25mm dia. Sight Glass	no.	2.00				
			25mm dia. Test Valve	no.	2.00				
			25mm dia. Section Drain Valve(GV)	no.	2.00				
			25mm dia. Union w/ corrosion resistant orifice	no.	2.00				
			<b>subtotal</b>						
		<b>4.5</b>	<b>STANDPIPES AND HOSES</b>						
			Supply and installation of standpipe and hoses, incl. support, painting, marking and accessories in acc with specs and as required to complete the system						
			Supply and installation of Fire Department Connection						
			100 x 65 x 65mm dia. Siamese Conn.	no.	1.00				
			100mm dia. Check Valve	no.	1.00				
			Supply and installation of Fire Hose Cabinet with 40 dia. Angle valve, 40mm x 30m rubber line cottonfire hose jacketed with chrome pin lug, threaded and 10lbs dry chemical type ABC portable fire extinguisher Surface mounted.	No.	3.00				
			<b>subtotal</b>						
		<b>4.6</b>	<b>INSTALLATION OF ELECT. FIRE AND JOCKEY PUMPS C/W ALL NECESSARY ITEMS TO COMPLETE THE SYSTEM</b>						
			FP-01, Vertical In-line, Rated cap 290 GPM, c/w controller, 78M TDH, 40 HP, 380V/3P/60Hz, UL Listed & FM Approved	no.	1.00				
			JP-01, Vertical In-line, 40 GPM, 82 M TDH, c/w controller 7.5 HP, 440V/3P/60Hz	no.	1.00				
			<b>Valves and Accessories</b>						
			50 mm dia. Check Valve	no.	1.00				
			50 mm dia. Gate Valve(Isolation)	no.	2.00				
			100 mm dia. Check Valve	no.	1.00				
			100 mm dia. Flexible Connector	no.	1.00				
			50 mm dia. Flexible Connector	no.	2.00				
			100 mm dia. Alarm Check Valve	no.	1.00				
			100 mm dia. Water Flow meter	no.	1.00				
			100 mm dia. OS&Y Gate valve(Meter Control)	no.	2.00				
			100 mm dia. Relief Valve	no.	1.00				
			Pressure Sensing line for Fire Pump and Jockey Pump	Item	1.00				
			<b>subtotal</b>						
			<b>TOTAL</b>						



5.0	<b>ELECTRICAL WORKS</b>							
	5.1	<b>POWER PANEL</b>						
		Main Distribution Panel (750KVA, 4000AT 3Phase)(ACB)	assy	1				
		Branches: 2 - 400 AT/500AF, 3P						
		<b>Power Panel 1 (PP1), 550KVA, 3Phase</b>	assy	1				
		Main: (2000AT/2500AF, 3P) MCCB						
		Branches: 1 - 300AT/400AF, 3P						
		1-250AT/300AF, 3P						
		1-1200AT/1500AF, 3P						
		1-100AT/150AF, 3P						
		3-30AT/100AF, 3P						
		<b>Power Panel 2 (PP2), 70KVA, 3Phase</b>	assy	1				
		Main: (400AT/500AF, 3P) MCCB						
		Branches: 1 - 100AT/200AF, 2P						
		1-200AT/300AF, 2P						
		2-space						
		<b>LPA- (100AT/200AF,3P)</b>	assy	1				
		Branches: 4-15AT/50AF, 2P						
		2-20AT/50AF, 2P						
		5-30AT/100AF, 2P						
		7-40AT/100AF, 2P						
		<b>LPB- (200AT/300AF,3P)</b>	assy	1				
		Branches: 5-60AT/100AF, 2P						
		1-40AT/100AF, 2P						
		<b>Power Panel 3 (PP3) 80KVA 3Phase</b>	assy	1				
		Main: (400AT/500AF, 3P) MCCB						
		Branches: 3-30AT/100AF, 3P						
		6-60AT/100AF, 3P						
		1-100AT/ 150AF, 3P						
		subtotal						
	5.2	<b>WIRING WORKS</b>						
		500mm <sup>2</sup> THHN (R.Y.B.)	lm	600				
		50mm <sup>2</sup> THHN (G)	lm	600				
		200mm <sup>2</sup> THHN wire	lm	554				
		50mm <sup>2</sup> THHN wire	lm	273				
		38mm <sup>2</sup> THHN wire	lm	136				
		30 mm <sup>2</sup> THHN wire	lm	132				
		22 mm <sup>2</sup> THHN wire	lm	46				
		14 mm <sup>2</sup> THHN wire	lm	253				
		8.0 mm <sup>2</sup> THHN wire	lm	205				
		5.5mm <sup>2</sup> THHN wire	ris	7				
		3.5mm <sup>2</sup> THHN wire	ris	85				
		Termination and Wiring Accessories	lot	1				
		Consumables	lot	1				
		subtotal						
	5.3	<b>WIRING DEVICES</b>						
		Single gang switch	set	11.00				
		Two gang switch	set	9.00				
		Three gang switch	set	6.00				
		Three way single gang switch	set	6.00				
		Three way two gang switch	set	14.00				
		Three way three gang switch	set	4.00				
		Four way three gang switch	set	1.00				
		One gang convenience outlet	set	3.00				
		Two gang convenience outlet	set	98.00				
		Two gang convenience outlet WP	set	3.00				
		GFCI grounding type convenience outlet	set	6.00				
		SPO outlet 30 Amp	set	9.00				
		Floor Outlet	set	16.00				
		subtotal						
	5.4	<b>LIGHTING FIXTURES</b>						
		2x9Watts Recessed Mounted Troffer 600x600 with Aluminum Reflect	set	78.00				
		18Watts Recessed Mounted Downlight 150mmØ with Glass Diffuser	set	75.00				
		18Watts Recessed Mounted Downlight 150mmØ with Glass Diffuser	set	3.00				
		18Watts Wall Mounted LED Fixtures with Reflector	set	1.00				
		18Watts Wall Mounted LED Fixtures with Reflector	set	1.00				
		18Watts Wall Mounted LED Outdoor Luminaire	set	15.00				
		Lamp Post	set	4.00				
		Hangers & Supports	set	1.00				
		subtotal						
		TOTAL						
6.0	<b>MECHANICAL WORKS</b>							
	6.1	<b>GALVANIZED STEEL DUCT WORKS</b>						
		FRESH AIR DUCT (FAD)						
		Ga. 26	Sq. M	17.28				
		Ga. 24	Sq. M	14.4				
		RETURN AIR DUCT (RAD)						
		Ga. 26	Sq. M	20.16				
		SUPPLY AIR DUCT (SAD)						
		Ga. 26	Sq. M	28.8				
		Ga. 24	Sq. M	11.52				
		EXHAUST AIR DUCT (EAD)						
		Ga. 26	Sq. M	23.04				
		Ga. 24	Sq. M	25.92				
		Thermashield Duct Insulation, 25mm thk	Sq.M	91				
		subtotal						
		<b>Duct Devices and ancillaries</b>						
		Supply Air Diffuser, 300 x 300/625 cfm	no.	3.00				
		Exhaust Ceiling Grille, 500 x 350/938 cfm	no.	2.00				
		Fresh Air Grille, 350 x 200/360 cfm	No.	1.00				
		Exhaust Ceiling Grille, 350 x 200/360 cfm	no.	1.00				
		Exhaust Air Louver, 700 x 500/360 cfm	no.	1.00				
		Fresh Air Louver, 800 x 500/360 cfm	no.	1.00				
		Return Air Grille, 350 x 200/360 cfm	no.	1.00				
		Supply Air Grille, 350 x 200/360 cfm	no.	1.00				
		supply Ceiling Diffuser, 200 x 200/185	no.	1.00				
		Return Air Grille, 250 x 200/220 cfm	no.	2.00				

		Supply Air Grille, 250 x 200/220 cfm	no.	2.00				
		Exhaust Air Louver, 700 x 500/440 cfm	no.	1.00				
		Fresh Air Louver, 800 x 500/360 cfm	no.	1.00				
		Fresh Air Louver, 1150 x 600/1875 cfm	no.	1.00				
		Fresh Air Louver, 800 x 600/380 cfm	no.	1.00				
		<b>subtotal</b>						
		<b>TOTAL</b>						
	7.0	HAULING, CLEANING, AND DISPOSAL OF DEBRIS	lot	1.00				
		<b>sub total</b>						

<b>INDIRECT COST</b>	
<b>TOTAL COST</b>	
<b>VALUE ADDED TAX</b>	
<b>TOTAL PROJECT COST</b>	<b>PHP</b>