



TEKKEN-AML-ABENIKKO JV

Contractor's Site Office for CP05 (1st Floor)
Khamarbari Road, Anwara Park, Farmgate, Dhaka-1215.

Our Ref: TEAMA/MRT6CP05/GEN/2019-0090;

Date: 14th September, 2019

Cross World Power Ltd
Plot 1/B, Road 90, Gulshan2, Dhaka-1212,
Bangladesh.

Project: Construction of Viaduct & Elevated station
(Bijoy sharani, Farmgate & Kawran bazar) Between Agargaon & Kawran Bazar

Attention: Mr. Harunor Rashid, Chief Operating Officer;

Subject: LETTER OF ACCEPTANCE (LOA);

Ref: 1)...

Dear Sir,

This has reference to your offer and subsequent negotiations, we, TEK-KEN – AML -ABENIKKO(TAA) JV (hereafter Contractor) are pleased to issue this Letter of Acceptance (LOA) and confirm that Cross World Power Ltd (hereafter Subcontractor) has been selected for Electrical, Plumbing, Ventilation & Air-Conditioning System Works for 3 Stations (Bijoy Sarani-S10, Farmgate-S11 & Karwan Bazar-S12) as per General Specifications 1/2, Volume 3-1 of 6 & Particular Specifications 2/2, Volume 3-2 of 6, Contract Drawings, BOQ's (Item No. 3, 4, 5,8 and 10) and relevant changes under Contract No. CP-05, Line-6 of MRT project (hereafter Contract Agreement/Contract) with below-mentioned Scope of Works and Terms & Conditions. The accepted total amount for the above-mentioned works is as follows:

	<u>Amount (BDT)</u>
Bill of Quantity Item No. 3, 4 & 5	367,812,536.70
Bill of Quantity Item No .8	3,500,000.00
Bill of Quantity Item No. 10	5,000,000.00

Grand Total Inclusive AIT (BDT)	376,312,536.70

Amount in Words: Bangladeshi Taka Three Hundred Seventy Six Million Three Hundred Twelve Thousand Five Hundred Thirty Six and Paisa Seventy only (Inclusive AIT)

- Summary of Scope and responsibilities under this LOA includes as follows (Item 1.1 to 1.9) but not limited to :
 - Material (source) submittal and obtaining approval.
 - Prepare and obtain the approval of Detailed Working (Shop) and As-Built Drawings for Electrical, Plumbing, Ventilation & Air-Conditioning System Works.



(M. Jahangir Alam)

ASR



TEKKEN-AML-ABENIKKO JV

Contractor's Site Office for CP05 (1st Floor)
Khamarbari Road, Anwara Park, Farmgate, Dhaka-1215.

- 1.3 Supply, installation, testing, commissioning and final hand over the Electrical, Plumbing, Ventilation & Air-Conditioning System equipment & works.
- 1.4 Training and Transfer of Knowledge & Skills (bill no. 09) for Electrical, Plumbing, Ventilation & Air-Conditioning System works.
- 1.5 Date of Commencement and Completion: As per project requirement and contractor's work program.
- 1.6 Warranty: As per Contract agreement.
- 1.7 Defect Notification Period: As per Contract agreement.
- 1.8 Other Scope: The Subcontract shall carry out all other duties, responsibilities stipulated in the contract agreement and instructions provided by the Engineer.
- 1.9 Subcontractor shall co-ordinate with relevant parties and authorities prior to or at the time of execution of works

Others terms and Conditions:

2. The Subcontractor shall abide by all General and Particular Specifications & Contract Drawings as applicable for the Contractor.
3. Mode of Payment for Electrical, Plumbing, Ventilation & Air-Conditioning System Works is attached as Attachment – 1.
4. General Notes:
 - 4.1 Cross World Power Ltd to submit the negotiated Bill of Quantities (BOQ) for the accepted amount.
 - 4.2 Cross World Power Ltd to furnish the authorization letter of the company signatory.
 - 4.3 The accepted amount shall be exclusive of Value Added Tax (VAT) but inclusive Advance Income Tax (AIT) as per relevant legislation of People's Republic of Bangladesh.
 - 4.4 During the factory visit the Subcontractor shall arrange accommodation and local transportation for visiting persons of the Contractor without any additional cost.
 - 4.5 The quoted unit price shall be fixed for all over the project period and no amendment shall be applicable in terms of time and or cost whatsoever the reasons.
 - 4.6 Advance payment shall be made against unconditional Bank Guarantee after signing the agreement and approval of materials by Engineer's.
 - 4.7 Sub-contractor is to submit the work programme, materials source details within 45 days from the issue date of this LOA. If the Sub-contractor fails to do so, this LOA shall be invalid and the Contractor may nullify this LOA without further notice.
 - 4.8 Delay Damage : Delay damage shall be applicable at 0.1% of LOA value per day. But the maximum amount of delay damage shall not exceed more than 10% of LOA value.
 - 4.9 This LOA shall supersede all other previous written or verbal commitment made by the Contractor, the Subcontractor and their agent.

However, hereby the parties also agreed that a formal agreement, with detail terms and condition shall be established between the Contractor and the Subcontractor once the Materials (source) approval shall be completed by the subcontractor from the Engineer and Employer.

(M. Jahangir Alam)



(Asst. Engineer)

TEAMA/MRT6CP05/GEN/2019-0090 Page 2 of 1



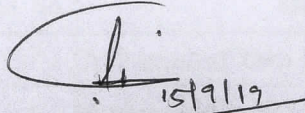


TEKKEN-AML-ABENIKKO JV

Contractor's Site Office for CP05 (1st Floor)
Khamarbari Road, Anwara Park, Farmgate, Dhaka-1215.

Yours faithfully,

For and on behalf of **TEKKEN-AML-ABENIKKO JV**


15/9/19

Engr. Mahamud Hossen

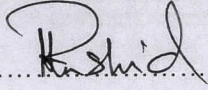
Deputy Project Manager



Yasushi Nakagawa

Project Manager

Signed, confirmed and agreed for and on behalf of Cross World Power Ltd.

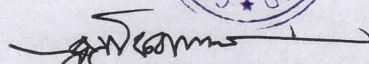
Signature: 

Name: MD HARUNOR RASHID

Designation: Chief operating officer


(M. Jahangir Alam)




ASRI ZAKIR Hossain

TEAMA/MRT6CP05/GEN/2019-0090, Page 3 of 1



Attachment - 1

Dhaka Mass Rapid Transit Development Project

Contract No. CP-05 : Construction of Viaduct and Elevated Stations (Bijoy Sarani, Farmgate and Karwan Bazar) between Agargaon and Karwan Bazar

Negotiated Mode of Payment with Cross-world for MEP (Electrical , Plumbing and Ventilation & Air-Conditioning System) Works

Sl. No.	Step of Work to be done	Amount (%)	Remarks
A. Imported Item :			
1	Source Approval		
2	Mobilization Advance (Upon completion of source approval of items required according to the contract)	10%	Against equal amount of unconditional Bank Gurantee
3	To accord approval of Working(Shop) Drawings by the Engineer's.		
4	Payment after Shippment, upon submission of shipping document (i.e. bill of lading, country of origin and packing list)	30%	
5	Materials at Site after successful Inspection by Engineer's	30%	
6	Installation, Testing, Commissioning and Training.	25%	
7	Security(Retention)	5%	Amount could be paid against of unconditional Bank Guarantee.
B. Local Item :			
1	Source Approval		
2	Mobilization Advance (Upon completion of source approval)	10%	Against equal amount of unconditional Bank Gurantee
3	Working Drawings		
4	Materials at Site after Inspection by Engineer's (Partial invoice against partial delivery. Minimum invoice value BDT 2,500,000)	60%	
5	Installation, Testing, Commissioning and Training.	25%	
6	Security(Retention)	5%	Amount could be paid against of unconditional Bank Guarantee.

(M. Jahangir Alam)



(ASUZA KIR Horama)



September 11, 2019

Power of Attorney

To
Project Manager
TEKKEN – AML -ABENIKKO (TAA) JV
Anwara Park , Farmgate - Dhaka

Supply, Installation, Testing and Commissioning of Electrical, Plumbing, Ventilation & Air-Conditioning System Works for 3 Stations (Bijoy Sarani-S10, Farmgate-S11 & Karwan Bazar-S11) under Contract No. CP-05, Line - 6.Dhaka Mass Rapid Transit Development Project

We, Cross World Power Ltd, duly organized under the laws of Peoples Republic of Bangladesh and having it's office at Plot 1/B, Road 90 , Gulshan-2, Dhaka - 1212 Bangladesh hereby nominate , constitute and appoint under mentioned person :

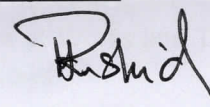
Name

Position

Signature

Md. Harunor Rashid

Chief Operating Officer

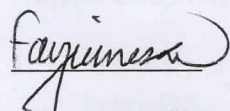


As our true and lawful attorney with full power and authority to do on our behalf and in our name such acts as below mentioned :

1. To negotiate, sign, execute, deliver and accept an agreement concerning captioned tender.
2. To do and perform any and all acts and things that he may deem necessary for or expedient the performance of any of the powers hereby granted.

This Power of Attorney shall remain in full force and effect until the validity of the captioned tender or revoked by us and you, whichever is earlier, revise notice of such revocation.

And we hereby ratify and confirm whatsoever our attorney may lawful do by virtue here of.



Faizunnessa Chowdhury
Director
Cross World Power Limited



Schedule 3: Summary of Bill of Quantities of Electrical Item

Bill No.	Description	Local - Bangladesh Taka	Foreign - Japanese Yen	REF.
Bill No. 3: Bijoy Sarani Station : Electrical Works				
Sub-Total of No. 3-2				
No. 3-3	Electrical Works :			
1	Electrical Works	83,909,948		
Sub Total of No. X-3		83,909,948		
Bill No. 4: Farmgate Station: Electrical Works				
No. 4-3	Electrical Works :			
1	Electrical Works	89,277,400		
Sub Total of No. 4-3		89,277,400		
Bill No. 5: Karwan Bazaar Station: Electrical Works				
No. 5-3	Electrical Works and Building Management System:			
1	Electrical Works	91,464,640		
Sub Total of No. 5-3		91,464,640		
GRAND TOTAL OF ELECTRICAL WORKS IN TK		264,651,988		

Schedule 3: Summary of Bill of Quantities

Bill No.	Description	Local - Bangladesh Taka	Foreign - Japanese Yen	REF.
Bill No. 3: Bijoy Sarani Station: Plumbing				
No. 3-4	Plumbing Works			
2	Plumbing	22,151,144		
Sub Total of No. 3-4		22,151,144		
Bill No. 4: Farmgate Station: Plumbing				
No. 4-4	Plumbing Works			
2	Plumbing	19,256,799		
Sub Total of No. 4-4		19,256,799		
Bill No. 5: Karwan Bazaar Station: Plumbing				
No. 5-4	Plumbing Works			
2	Plumbing	19,601,922		
Sub Total of No. 5-4		19,601,922		
GRAND TOTAL OF PLUMBING IN TK		61,009,866		

Schedule 3: Summary of Bill of Quantities

Bill No.	Description	Local - Bangladesh Taka	Foreign - Japanese Yen	REF.
Bill No. 3: Bijoy Sarani Station: HVAC				
No. 3-4	HVAC System			
3	Ventilation and Air-Conditioning Works	14,644,343		
Sub Total of No. 3-4		14,644,343		
Bill No. 4: Farmgate Station: HVAC				
No. 4-4	HVAC System			
3	Ventilation and Air-Conditioning Works	13,170,543		
Sub Total of No. 4-4		13,170,543		
Bill No. 5: Karwan Bazaar Station: HVAC				
No. 5-4	HVAC System			
3	Ventilation and Air-Conditioning Works	14,335,796		
Sub Total of No. 5-4		14,335,796		
Total for Bill No.11				
Bill No.12: Provisional Sums				
Total for Bill No.12				
GRAND TOTAL OF HVAC IN TK		42,150,682		

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
No. 3-3	Electrical Works and Building Management System:						
1	Electrical Works						
1 1	M V SWITCHGEAR						
1 1 1	Switch Boards / Panels		0.0				
1 1 1 1	Main Distribution Board (MDB Type I)	Nos.	1.0	5,910,727		5,910,727	
1 1 1 2	Main Distribution Board (MDB Type II)	Nos.	0.0	5,944,413		-	
1 1 1 3	Main Distribution Board (MDB Type III)	Nos.	0.0	6,300,189		-	
1 1 1 4	Essential Power Panel (EPP Type I)	Nos.	1.0	3,952,487		3,952,487	
1 1 1 5	Essential Power Panel (EPP Type II)	Nos.	0.0	3,973,087		-	
1 1 1 6	Essential Power Panel (EPP Type III)	Nos.	0.0	3,933,979		-	
1 1 1 7	Essential Power Panel (EPP Type IV)	Nos.	0.0	3,871,280		-	
1 1 1 8	Main lighting panel (MLP Type I) complete with ATS (Incomer-1 & Incomer-2 from MDB interlocked via ATS)	Nos.	1.0	1,923,390		1,923,390	
1 1 1 9	Main lighting panel (MLP Type II) complete with ATS (Incomer-1 & Incomer-2 from MDB interlocked via ATS)	Nos.	0.0	1,923,390		-	
1 1 1 10	Emergency Main Lighting Panel (Type I)	Nos.	1.0	263,274		263,274	
1 1 1 11	Emergency Main Lighting Panel (Type II)	Nos.	0.0	268,218		-	
1 1 1 12	Water Pump Panel (WPP) complete with ASTS (Incomer-1 from MDB and Incomer-2 from EPP shall be interlocked via ATS)	Nos.	1.0	730,939		730,939	
1 1 1 13	Fire Pump Panel (FPP) complete with ASTS (Incomer-1 from MDB and Incomer-2 from DG AMF Panel shall be interlocked via ATS)	Nos.	1.0	1,481,028		1,481,028	
1 1 1 14	ACPP Panel (Air- Conditioning Power Panel) (Type I)	Nos.	1.0	1,591,509		1,591,509	
1 1 1 15	ACPP Panel (Air- Conditioning Power Panel) (Type II)	Nos.	0.0	1,212,574		-	
1 1 1 16	ACPP Panel (Air- Conditioning Power Panel) (Type III)	Nos.	0.0	1,580,841		-	
1 1 1 17	ACPP Panel (Air- Conditioning Power Panel) (Type IV)	Nos.	0.0	1,207,901		-	
1 1 1 18	ACDB Panel (Air- Conditioning Distribution Board, Type I)	Nos.	1.0	188,802		188,802	
1 1 1 19	ACDB Panel (Air- Conditioning Distribution Board, Type-II)	Nos.	0.0	196,218		-	
1 1 1 20	ACDB Panel (Air- Conditioning Distribution Board, Type-III)	Nos.	0.0	188,040		-	
1 1 1 21	ACDB Panel (Air- Conditioning Distribution Board, Type-IV)	Nos.	0.0	198,690		-	
1 1 1 22	RADB Panel (Retail & Advertisement Distribution Board)	Nos.	0.0	269,673		-	
1 1 1 23	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type I)	Nos.	1.0	582,584		582,584	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 1 1 24	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type II)	Nos.	0.0	582,584		-	
1 1 1 25	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type III)	Nos.	0.0	599,923		-	
1 1 1 26	ESPP Panel (Escalator Power Panel) (Type I)	Nos.	1.0	955,705		955,705	
1 1 1 27	ESPP Panel (Escalator Power Panel) (Type II)	Nos.	0.0	1,110,765		-	
1 1 1 28	ESPP Panel (Escalator Power Panel) (Type III)	Nos.	0.0	1,167,810		-	
1 1 1 29	RAP Panel (Retail & Advertisement Panel Type-I)	Nos.	1.0	1,716,860		1,716,860	
1 1 1 30	RAP Panel (Retail & Advertisement Panel Type-II)	Nos.	0.0	1,684,291		-	
1 1 1 31	RAP Panel (Retail & Advertisement Panel Type-III)	Nos.	0.0	1,634,142		-	
1 1 1 32	CAPACITOR PANEL (125kVAR Type I)	Nos.	2.0	873,136		1,746,272	
1 1 1 33	CAPACITOR PANEL (155kVAR Type II)	Nos.	0.0	942,011		-	
1 1 1 34	400 Amp TPN Isolator	Nos.	1.0	68,369		68,369	
1 1 1 35	250 Amp TPN Isolator	Nos.	1.0	67,941		67,941	
1 1 1 36	125 Amp TPN Isolator	Nos.	2.0	44,959		89,918	
1 1 1 37	100 Amp TPN Isolator	Nos.	2.0	44,959		89,918	
1 1 1 38	63 Amp TPN Isolator	Nos.	7.0	16,550		115,847	
1 1 1 39	32 Amp TPN Isolator	Nos.	1.0	9,021		9,021	
1 1 1 40	100 Amp DP Isolator	Nos.	1.0	15,412		15,412	
1 1 1 41	25 Amp DP Isolator	Nos.	3.0	4,847		14,540	
1 1 1 42	Rate for Addition / Deletion of Item		0.0	-		-	
1 1 1 42a	TPN MCCB Type-1	Nos.	1.0	136,404		136,404	
1 1 1 42b	TPN MCCB Type-2	Nos.	1.0	119,539		119,539	
1 1 1 42c	TPN MCCB Type-3	Nos.	1.0	126,818		126,818	
1 1 1 42d	TPN MCCB Type-4	Nos.	1.0	109,883		109,883	
1 1 1 42e	TPN MCCB Type-5	Nos.	1.0	75,395		75,395	
1 1 1 42f	TPN MCCB Type-6	Nos.	1.0	63,257		63,257	
1 1 1 42g	TPN MCCB Type-7	Nos.	1.0	48,648		48,648	
1 1 1 43	Electrical Operating mechanism (EOM)		0.0	-		-	
1 1 1 43a	EOM 5-32A FP MCB 10 kA	Nos.	1.0	3,397		3,397	
1 1 1 43b	EOM 40-63A FP MCB 10 kA	Nos.	1.0	5,702		5,702	
1 1 1 43c	EOM 5-32A TP MCB 10 kA	Nos.	1.0	2,478		2,478	
1 1 1 43d	EOM 40-63A TP MCB 10 kA	Nos.	1.0	3,863		3,863	
1 1 1 43e	EOM 5-32A DP MCB 10 kA	Nos.	1.0	1,597		1,597	
1 1 1 43f	EOM 40-63A DP MCB 10 kA	Nos.	1.0	2,348		2,348	
1 1 1 43g	EOM 5-32A SP MCB 10 kA	Nos.	1.0	766		766	
1 1 1 43h	EOM 40-63A SP MCB 10 kA	Nos.	1.0	1,610		1,610	
1 1 1 43i	EOM 16-32Amp DP RCBO, 30 mA	Nos.	1.0	2,742		2,742	
1 1 1 43j	EOM 40-63Amp DP RCBO, 30 mA	Nos.	1.0	3,829		3,829	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 1 1 44	Remote Monitoring and Control		0.0	-		-	
1 1 1 44a	Remote Monitoring and Control Case-1	Nos.	1.0	349,831		349,831	
1 1 1 44b	Remote Monitoring and Control Case-2	Nos.	1.0	232,029		232,029	
1 1 2	Other Accessories		0.0	-		-	
1 1 2 1	Safety Equipment	Set	1.0	45,778		45,778	
1 2	Distribution Boards			-		-	
1 2 1	Lighting Distribution Boards (LDB) Type-1	Nos.	5.0	363,363		1,816,815	
1 2 2	Lighting Distribution Boards (LDB) Type-2	Nos.	2.0	193,116		386,232	
1 2 3	Lighting Distribution Boards (LDB) Type-3	Nos.	3.0	335,652		1,006,955	
1 2 4	Lighting Distribution Boards (LDB) Type-4	Nos.	8.0	194,075		1,552,600	
1 2 5	Lighting Distribution Boards (LDB) Type-5	Nos.	1.0	97,522		97,522	
				-			
				-			
1 3	MV CABLING			-			
1 3 1	Cable Supply & Laying, Al Conductor and others			-			
1 3 1 1	3.5 core 300 sq. mm Al Conductor	M	500.0	3,593		1,796,426	
1 3 1 2	3.5 core 240 sq. mm Al Conductor	M	60.0	2,911		174,647	
1 3 1 3	3.5 core 185 sq. mm Al Conductor	M	650.0	2,336		1,518,669	
1 3 1 4	3.5 core 150 sq. mm Al Conductor	M	30.0	1,890		56,688	
1 3 1 5	3.5 core 120 sq. mm Al Conductor	M	30.0	1,606		48,177	
1 3 1 6	3.5 core 95 sq. mm Al Conductor	M	40.0	1,312		52,463	
1 3 1 7	3.5 core 70 sq. mm Al Conductor	M	30.0	1,061		31,830	
1 3 1 8	3.5 core 50 sq. mm Al Conductor	M	40.0	745		29,804	
1 3 1 9	3.5 core 25 sq. mm Al Conductor	M	205.0	568		116,538	
1 3 1 10	4 core 95 sq. mm Al Conductor	M	20.0	1,387		27,743	
1 3 1 11	4 core 35 sq. mm Al Conductor	M	175.0	546		95,574	
1 3 1 12	4 core 25 sq. mm Al Conductor	M	1,710.0	505		863,879	
1 3 1 13	4 core 16 sq. mm Al Conductor	M	4,020.0	379		1,525,141	
1 3 1 14	4 core 10 sq. mm Al Conductor	M	550.0	285		156,481	
1 3 1 15	4 core 6 sq. mm Al Conductor	M	290.0	222		64,464	
1 3 1 16	3 core 240 sq. mm Al Conductor	M	55.0	2,402		132,130	
1 3 1 17	3 core 16 sq. mm Al Conductor	M	210.0	309		64,906	
1 3 1 18	3 core 6 sq. mm Cu Conductor	M	70.0	388		27,146	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 3 1 19	3 core 4 sq. mm Cu Conductor	M	120.0	286		34,330	
1 3 1 20	2 core 16 sq. mm Al Conductor	M	210.0	241		50,688	
1 3 1 21	2 core 25 sq. mm Al Conductor	M	610.0	319		194,798	
1 3 1 22	2 core 6 sq. mm Cu Conductor	M	865.0	277		239,667	
1 3 1 23	2 core 4 sq. mm Cu Conductor	M	1,300.0	206		268,344	
1 3 1 24	3 core 35 sq. mm Al Conductor	M	30.0	431		12,927	
1 3 1 25	3 core 25 sq. mm Al Conductor	M	30.0	409		12,284	
1 3 2	Cable Jointing and Termination			-		-	
1 3 2 1	3.5 core 300 sq. mm Al Conductor	Set	28.0	4,739		132,688	
1 3 2 2	3.5 core 240 sq. mm Al Conductor	Set	4.0	4,739		18,955	
1 3 2 3	3.5 core 185 sq. mm Al Conductor	Set	20.0	4,739		94,777	
1 3 2 4	3.5 core 150 sq. mm Al Conductor	Set	2.0	4,739		9,478	
1 3 2 5	3.5 core 120 sq. mm Al Conductor	Set	2.0	4,739		9,478	
1 3 2 6	3.5 core 95 sq. mm Al Conductor	Set	2.0	4,739		9,478	
1 3 2 7	3.5 core 70 sq. mm Al Conductor	Set	2.0	4,739		9,478	
1 3 2 8	3.5 core 50 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 9	3.5 core 25 sq. mm Al Conductor	Set	10.0	2,369		23,688	
1 3 2 10	4 core 95 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 11	4 core 35 sq. mm Al Conductor	Set	12.0	2,369		28,425	
1 3 2 12	4 core 25 sq. mm Al Conductor	Set	30.0	2,369		71,063	
1 3 2 13	4 core 16 sq. mm Al Conductor	Set	100.0	2,369		236,876	
1 3 2 14	4 core 10 sq. mm Al Conductor	Set	8.0	2,369		18,950	
1 3 2 15	4 core 6 sq. mm Al Conductor	Set	80.0	2,369		189,501	
1 3 2 16	3 core 240 sq. mm Al Conductor	Set	10.0	4,739		47,389	
1 3 2 17	3 core 16 sq. mm Al Conductor	Set	14.0	2,369		33,163	
1 3 2 18	3 core 6 sq. mm Cu Conductor	Set	4.0	2,369		9,475	
1 3 2 19	3 core 4 sq. mm Cu Conductor	Set	6.0	2,369		14,213	
1 3 2 20	2 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 21	2 core 16 sq. mm Al Conductor	Set	25.0	2,369		59,219	
1 3 2 22	2 core 6 sq. mm Cu Conductor	Set	30.0	2,369		71,063	
1 3 2 23	2 core 4 sq. mm Cu Conductor	Set	70.0	2,369		165,813	
1 3 2 24	3 core 35 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 25	3 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 3	Conductor Cables			-		-	
1 3 3 1	Conductor Cables: 2 C x 1.5 sq. mm	M	100.0	120		12,042	
1 3 3 2	Conductor Cables: 4 C x 1.5 sq. mm	M	100.0	178		17,769	
1 3 3 3	Conductor Cables: 5 C x 1.5 sq. mm	M	100.0	188		18,817	
1 3 3 4	Conductor Cables: 6 C x 1.5 sq. mm	M	100.0	216		21,589	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 3 3 5	Conductor Cables: 8 C x 1.5 sq. mm	M	100.0	279		27,917	
1 3 3 6	Conductor Cables 10 C x 1.5 sq. mm	M	100.0	320		32,001	
1 3 4	Cable Trays			-		-	
1 3 4 1	Cable Trays: 600 mm wide x 100 mm deep x 10 mm bend	M	160.0	3,881		620,916	
1 3 4 2	Cable Trays: 600 mm wide x 50 mm deep x 10 mm bend	M	250.0	3,405		851,273	
1 3 4 3	Cable Trays: 450 mm wide x 50 mm deep x 10 mm bend	M	50.0	2,903		145,160	
1 3 4 4	Cable Trays: 300 mm wide x 50 mm deep x 10 mm bend	M	180.0	2,006		361,079	
1 3 4 5	Cable Trays: 150 mm wide x 50mm deep x 10 mm bend	M	1,660.0	1,299		2,155,878	
1 3 4 6	Cable Trays: 150 mm wide x 40mm deep x 10 mm bend	M	50.0	1,189		59,454	
1 3 5	Sheet Steel Raceways (SSR)			-		-	
1 3 5 1	SSR: 300 mm wide & 100 mm deep	M	50.0	2,475		123,772	
1 3 5 2	SSR: 250 mm wide & 100 mm deep	M	50.0	2,242		112,113	
1 3 5 3	SSR: 300 mm wide & 50 mm deep	M	50.0	2,006		100,300	
1 3 5 4	SSR: 275 mm wide & 75 mm deep	M	420.0	2,242		941,751	
1 3 5 5	SSR: 250 mm wide & 75 mm deep	M	180.0	2,006		361,079	
1 3 5 6	SSR: 100 mm wide & 50 mm deep	M	50.0	1,067		53,354	
1 3 6	GI ladder type cable trays			-		-	
1 3 6 1	GI ladder type cable trays: 600 mm wide	M	300.0	1,833		549,911	
1 3 6 2	GI ladder type cable trays: 450 mm wide	M	50.0	1,686		84,317	
1 3 6 3	GI ladder type cable trays: 300 mm wide	M	100.0	1,467		146,705	
1 3 7	Fabricated GI Steel Work	kg	4,000.0	375		1,498,602	
				-			
				-			
				-			
1 4	Conduit Wiring			-			
1 4 1	First point controlled by one Nos. switch (Primary Point)	Nos.	44.0	3,016		132,704	
1 4 2	DB/MCB Controlled Primary Light Points	Nos.	82.0	6,439		527,989	
1 4 3	Secondary Light Points	Nos.	455.0	2,868		1,305,073	
1 4 4	DB/MCB Controlled Primary Light Points for existing Light Raceway/Conduits	Nos.	25.0	5,314		132,840	
1 4 5	Secondary Light Points for existing Light Raceway/Conduits	Nos.	300.0	2,484		745,273	
1 4 6	Ceiling Fan Points	Nos.	10.0	2,503		25,030	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 4 7	Exhaust Fan Points	Nos.	22.0	3,003		66,057	
1 4 8	Wiring for Socket Outlets		0.0	-		-	
1 4 8 1	Wiring for Socket Outlets 1	Nos.	50.0	5,610		280,518	
1 4 8 2	Wiring for Socket Outlets 2	Nos.	140.0	2,725		381,445	
1 4 8 3	Wiring for Socket Outlets 3	Nos.	6.0	8,201		49,204	
1 4 8 4	Wiring for Socket Outlets 4	Nos.	80.0	7,693		615,448	
1 4 8 5	Wiring for Socket Outlets 5	Nos.	5.0	14,562		72,808	
1 4 8 6	Wiring for Socket Outlets 6	Nos.	5.0	26,524		132,618	
1 4 8 7	Wiring for Socket Outlets 7	Nos.	3.0	27,673		83,019	
1 4 8 8	Wiring for Socket Outlets 8	Nos.	3.0	29,695		89,086	
1 4 8 9	Wiring for Socket Outlets 9	Nos.	45.0	7,947		357,610	
1 4 8 10	Wiring for Socket Outlets 10	Nos.	3.0	28,937		86,810	
1 4 9	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires			-		-	
1 4 9 1	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 2.5 sqmm	M	10.0	59		591	
1 4 9 2	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 4.0 sqmm	M	10.0	90		900	
1 4 9 3	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 6.0 sqmm	M	10.0	132		1,316	
1 4 9 4	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 10.0 sqmm	M	10.0	205		2,055	
1 4 9 5	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 16.0 sqmm	M	10.0	332		3,317	
1 4 10	GI Conduiting			-		-	
1 4 10 1	GI Conduiting: 25 mm dia 1.6mm thick	M	100.0	122		12,220	
1 4 10 2	GI Conduiting: 32 mm dia 1.6mm thick	M	50.0	148		7,386	
1 4 10 3	GI Conduiting: 50 mm dia 2.0mm thick	M	25.0	207		5,170	
1 4 11	Modular Grid Plate mounted Switch/es and Socket/s etc.			-		-	
1 4 11 1	Modular Grid Plate mounted Switch/es and Socket/s etc. 1	Each	1.0	432		432	
1 4 11 2	Modular Grid Plate mounted Switch/es and Socket/s etc. 2	Each	1.0	759		759	
1 4 11 3	Modular Grid Plate mounted Switch/es and Socket/s etc. 3	Each	15.0	694		10,414	
1 4 11 4	Modular Grid Plate mounted Switch/es and Socket/s etc. 4	Each	1.0	924		924	
1 4 11 5	Modular Grid Plate mounted Switch/es and Socket/s etc. 5	Each	1.0	12,782		12,782	
1 4 11 6	Modular Grid Plate mounted Switch/es and Socket/s etc. 6	Each	1.0	13,573		13,573	
1 4 11 7	Modular Grid Plate mounted Switch/es and Socket/s etc. 7	Each	1.0	19,718		19,718	
1 4 11 8	Modular Grid Plate mounted Switch/es and Socket/s etc. 8	Each	1.0	10,526		10,526	
1 4 11 9	Modular Grid Plate mounted Switch/es and Socket/s etc. 9	Each	1.0	10,822		10,822	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 4 12	3-Compartment Sheet Steel Raceways (3-Compartment SSR)			-		-	
1 4 12 1	3-Compartment SSR: 300mm wide and 100mm deep	M	10.0	2,845		28,455	
1 4 12 2	3-Compartment SSR: 150mm wide and 50mm deep	M	50.0	1,517		75,870	
1 4 12 3	3-Compartment SSR: 100mm wide and 50mm deep	M	100.0	1,221		122,064	
1 4 13	3-Compartment Ceiling Raceway	M	400.0	2,594		1,037,742	
1 4 14	8 SWG GI Wire for Earthing	M	500.0	71		35,585	
1 4 15	G.I. Box	Nos.	25.0	90		2,249	
				-			
				-			
				-			
1 5	INDOOR LIGHTING AND FANS			-			
1 5 1	INDOOR LIGHTING			-			
1 5 1 1	LED Recessed Troffer Luminaire	Nos.	116.0	10,906		1,265,148	
1 5 1 2	Batten with 1x18W LED Tube Type-1	Nos.	4.0	2,382		9,526	
1 5 1 3	Batten with 1x18W LED Tube Type-2	Nos.	11.0	2,382		26,198	
1 5 1 4	High Bay Narrow beam LED Luminaire	Nos.	185.0	11,439		2,116,262	
1 5 1 5	LED Recessed Downlighter Type-1	Nos.	11.0	1,696		18,657	
1 5 1 6	LED Recessed Downlighter Type-2	Nos.	16.0	2,204		35,264	
1 5 1 7	LED Recessed Downlighter Type-3	Nos.	43.0	2,648		113,865	
1 5 1 8	LED 4ft Batten Luminaire	Nos.	363.0	2,470		896,764	
1 5 1 9	LED Bulkhead Luminaire	Nos.	20.0	1,696		33,922	
1 5 1 10	LED recessed Luminaire	Nos.	22.0	2,435		53,568	
1 5 1 11	LED Surface Mounted Downlighter Type-1	Nos.	4.0	2,470		9,882	
1 5 1 12	LED Surface Mounted Downlighter Type-2	Nos.	29.0	3,358		97,394	
1 5 1 13	LED Surface Mounted Downlighter Type-3	Nos.	4.0	3,358		13,434	
1 5 1 14	LED High Bay Luminaire	Nos.	4.0	19,980		79,920	
1 5 2	FANS			-		-	
1 5 2 1	Bracket Fan	Nos.	1.0	8,041		8,041	
1 5 2 2	Ceiling Fans		0.0	-		-	
1 5 2 2a	Ceiling fan 1200 mm sweep with all accessories	Nos.	6.0	4,613		27,676	
1 5 2 2b	Ceiling fan 1400 mm sweep with all accessories	Nos.	2.0	5,166		10,332	
1 5 2 2c	Ceiling fan 900 mm sweep with all accessories	Nos.	2.0	3,317		6,634	
1 5 2 3	Air Circulator Fan	Nos.	2.0	18,169		36,337	
1 5 2 4	Exhaust Fan		0.0	-		-	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 5 2 4a	Exhaust Fan; size 450mm dia, 1400 rpm	Nos.	10.0	14,139		141,387	
1 5 2 4b	Exhaust Fan; size 300mm dia, 1400 rpm	Nos.	10.0	10,157		101,572	
				-			
				-			
				-			
				-			
1 6	PROTECTIVE EARTHING			-			
1 6 1	Earthmat			-			
1 6 1 1	#REF!	M	125.0	4,359		544,851	
1 6 1 2	#REF!	Nos.	12.0	13,018		156,215	
1 6 1 3	Copper/GI Strips/Wire for Interconnecting the Earthing Stations, Panels, DBs etc.			-		-	
1 6 1 3a	#REF!	M	50.0	5,599		279,958	
1 6 1 3b	#REF!	M	1,370.0	4,485		6,144,699	
1 6 1 3c	#REF!	M	100.0	3,371		337,120	
1 6 1 3d	#REF!	M	100.0	2,257		225,722	
1 6 1 3e	#REF!	M	1,560.0	1,700		2,652,354	
1 6 1 3f	#REF!	M	100.0	865		86,474	
1 6 1 3g	#REF!	M	25.0	2,703		67,570	
1 6 1 3h	#REF!	M	25.0	1,700		42,506	
1 6 1 4	Extra Work 1	M	50.0	1,666		83,315	
1 6 1 5	Extra Work 2	Nos.	20.0	5,887		117,746	
1 6 1 6	Total Maintenance Free Earthing	Nos.	1.0	40,809		40,809	
1 6 1 7	100mm Dia DWC HDPE Pipe in 1.0 meter deep x 0.5 meter wide Trench	M	20.0	1,717		34,344	
				-			
				-			
				-			
				-			
1 7	LIGHTNING PROTECTION (Advanced Controlled Streamer Emission based			-			
1 7 1	Lightning Protection System with Controlled Streamer Emission (CSE)	Nos.	3.0	496,973		1,490,920	
1 7 2	Lightning Discharging Counter	Nos.	1.0	67,915		67,915	
1 7 3	Multi Layered Cable	M	450.0	7,661		3,447,390	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 7 4	NP4 Grade HDPE Pipe Excavated in Ground			-		-	
1 7 4 1	NP4 Grade HDPE Pipe Excavated in Ground, 50mm dia.	M	10.0	218		2,175	
1 7 4 2	NP4 Grade HDPE Pipe Excavated in Ground, 40mm dia.	M	50.0	164		8,191	
1 7 4 3	NP4 Grade HDPE Pipe Excavated in Ground, 25mm dia.	M	10.0	110		1,101	
1 7 5	Test Link Box	Nos.	3.0	2,726		8,178	
1 7 6	Total Maintenance Free Earthing	Nos.	6.0	44,077		264,463	
				-			
				-			
				-			
1 8	EXTERNAL LIGHTING			-			
1 8 1	Hume pipes			-			
1 8 1 1	150 mm dia RCC hume pipes(Class NP-4) in road crossings and below paved areas	M	200.0	2,014		402,771	
1 8 1 2	GI Pipes complete with Joints and other Accessories			-		-	
1 8 1 2a	GI pipes Type 1	M	30.0	4,427		132,814	
1 8 1 2b	GI pipes Type 2	M	75.0	3,622		271,619	
1 8 1 2c	GI pipes Type 3	M	10.0	13,285		132,847	
1 8 1 2d	GI pipes Type 4	Nos.	10.0	55,233		552,326	
1 8 2	External Lights			-		-	
1 8 2 1	Poles			-		-	
1 8 2 1a	Poles Type 1	Nos.	1.0	49,237		49,237	
1 8 2 1b	Poles Type 2	Nos.	1.0	49,237		49,237	
1 8 2 1c	Poles Type 3	Nos.	22.0	53,221		1,170,852	
1 8 2 1d	Poles Type 4	Nos.	12.0	53,221		638,647	
1 8 2 2	LED Street Light Single Piece Type-1	Nos.	45.0	14,139		636,235	
1 8 2 3	LED Street Light Single Piece Type-2	Nos.	2.0	45,469		90,937	
1 8 3	Air Craft Warning Lights	Nos.	1.0	87,756		87,756	
				-			
				-			
				-			
1 9	UNINTERRUPTED POWER SUPPLY SYSTEM			-			
1 9 1	True Parallel Redundant	Set	1.0	1,707,767		1,707,767	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
1 9 2	2V Cell based SMF VRLA Battery Banks separate for both UPS each having 30 minutes back up time	Set	1.0	581,369		581,369	
				-			
				-			
				-			
				-			
1 10	DIESEL GENERATOR			-			
1 10 1	Diesel Generator Sets			-			
1 10 1 1	Diesel Generator Sets 380 KVA DG set	Set	0.0	-		-	
1 10 1 2	Diesel Generator Sets 320 KVA DG set	Set	1.0	3,523,410		3,523,410	
1 10 2	AMF PANEL	Nos.	1.0	1,226,754		1,226,754	
1 10 3	EXHAUST PIPING			-			
1 10 3 1	EXHAUST PIPING for DG sets of 380 KVA ratings	M	0.0	-		-	
1 10 3 2	EXHAUST PIPING for DG sets of 320 KVA ratings	M	10.0	7,219		72,189	
1 10 4	Fuel System			-			
1 10 4 1	Fuel System Part 1	Nos.		-		-	
1 10 4 2	Fuel System Part 2	Nos.	1.0	-		-	
1 10 4 3	Fuel System Part 3	Nos.	1.0	-		-	
1 10 4 4	Fuel System Part 4			-			
1 10 4 4a	Fuel System Part 4 for DG sets of 380 KVA ratings	Nos.		-		-	
1 10 4 4b	Fuel System Part 4 for DG sets of 320 KVA ratings	Nos.		-		-	
1 10 5	FUEL OIL PIPING			-			
1 10 5 1	FUEL OIL PIPING for DG sets of 380 KVA ratings	M		-		-	
1 10 5 2	FUEL OIL PIPING for DG sets of 320 KVA ratings	M	20.0	-		-	
				-			
				-			
				-			
	Sub Total 1:			-		83,909,948	
2	Plumbing			-			
2 1	Drainage System			-			
2 1 1	Upvc Class pipe			-			

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
2 1 1 1	Upvc Class pipe 32 mm dia.	lm	30.0	196		5,880	
2 1 1 2	Upvc Class pipe 50 mm dia.	lm	450.0	475		213,885	
2 1 1 3	Upvc Class pipe 75 mm dia.	lm	500.0	1,116		557,783	
2 1 1 4	Upvc Class pipe 100 mm dia.	lm	570.0	1,646		938,448	
2 1 1 5	Upvc Class pipe 100 mm dia. (Underground)		20.0	2,345		46,909	
2 1 2	Upvc 'P' or 'S' trap			-		-	
2 1 2 1	Upvc 'P' or 'S' trap 100 mm dia.	nos.	30.0	8,763		262,885	
2 1 3	Floor Drain		55.0	-		-	
2 1 3 1	Floor Drain Steel Grating 100mm dia.	nos.	55.0	6,125		336,875	
2 1 4	Galvanized Steel Pipes and Screw Fitting (GSPSF)			-		-	
2 1 4 1	GSPSF 32 mm dia.	lm	30.0	1,419		42,581	
2 1 4 2	GSPSF 40mm dia.	lm	6.0	1,779		10,672	
2 1 4 3	GSPSF 50 mm dia.	lm	20.0	2,138		42,761	
2 1 5	G.I. Pipes (Coated and Embedded)			-		-	
2 1 5 1	G.I. Pipes 32 mm dia.	lm	30.0	1,632		48,951	
2 1 5 2	G.I. Pipes 40mm dia.	lm	6.0	2,045		12,270	
2 1 5 3	G.I. Pipes 50 mm dia.	lm	6.0	2,458		14,749	
2 1 6	Cast Brass Cleanout Plug			-		-	
2 1 6 1	Cast Brass Cleanout Plug 50 mm dia.	nos.	2.0	10,377		20,753	
2 1 6 2	Cast Brass Cleanout Plug 75 mm dia.	nos.	12.0	12,970		155,644	
2 1 6 3	Cast Brass Cleanout Plug 100 mm dia.	nos.	6.0	18,284		109,701	
2 1 7	Galvanized Iron Pipe			-		-	
2 1 7 1	Galvanized Iron Pipe 50 mm dia.	lm	25.0	2,138		53,451	
2 1 7 2	Galvanized Iron Pipe 75 mm dia.	lm	30.0	3,667		110,005	
2 1 7 3	Galvanized Iron Pipe 100 mm dia.	lm	25.0	5,294		132,341	
2 1 7 4	Galvanized Iron Pipe 150 mm dia.	lm	250.0	7,007		1,751,750	
2 1 7 5	Galvanized Iron Pipe 200 mm dia.	lm	N/A	9,810			
2 1 8	Upvc Class E			-		-	
2 1 8 1	Glazed Stoneware Pipe 150 mm dia.	lm	50.0	14,948		747,413	
2 1 8 2	Glazed Stoneware Pipe 200 mm dia.	lm	0.0	17,751		-	
2 1 8 3	Glazed Stoneware Pipe 250 mm dia.	lm	0.0	22,422		-	
2 1 9	Non-Pressure Class R.C.C Pipe (Underground)			-		-	
2 1 9 1	Non-Pressure Class R.C.C. Pipe 150 mm dia.	lm	50.0	5,606		280,280	
2 1 9 2	Non-Pressure Class R.C.C. Pipe 200 mm dia.	lm	65.0	7,007		455,455	
2 1 9 3	Non-Pressure Class R.C.C. Pipe 250 mm dia.	lm	300.0	7,474		2,242,240	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
2 1 9 4	Non-Pressure Class R.C.C. Pipe 300 mm dia.	lm	50.0	7,941		397,063	
2 1 9 5	Non-Pressure Class R.C.C. Pipe 400 mm dia.	lm	60.0	13,780		826,826	
2 1 10	S. W. Gully Trap (Upvc)			-		-	
2 1 10 1	S. W. Gully Trap	Each	3.0	8,876		26,627	
2 1 11	Road Gully Chamber (Catch basin)			-		-	
2 1 11 1	Road Gully Chamber 45x45x45 cm deep	Each	26.0	50,498		1,312,942	
2 1 11 2	Road Gully Chamber 60x60x60 cm deep.	Each	0.0	70,037		-	
2 1 12	Brick Masonry Square Manhole			-		-	
2 1 12 1	Brick Masonry Square Manhole Type 1	Each	4.0	35,969		143,877	
2 1 12 2	Brick Masonry Square Manhole Type 2	Each	0.0	33,634		-	
2 1 13	Extra Square Manhole Work			-		-	
2 1 13 1	Extra Square Manhole Work Type 1	lm	4.0	35,035		140,140	
2 1 13 2	Extra Square Manhole Work Type 2	lm	0.0	39,706		-	
2 1 14	Brick Masonry Circular Manhole (For soil & waste)			-		-	
2 1 14 1	Brick Masonry Circular Manhole Type 1	Each	0.0	51,385		-	
2 1 14 1	Brick Masonry Circular Manhole Type 2	Each	2.0	51,385		102,769	
2 1 15	Extra Circular Manhole Works(For soil & waste)			-		-	
2 1 15 1	Extra Circular Manhole Works Type 1	Each	4.0	42,042		168,168	
2 1 16 1	Rung Ladder for all manholes	Each	13.0	8,408		109,309	
2 1 17 1	Soil Trenches (External Work)	lm	120.0	4,252		510,188	
2 1 18 1	C.P. Brass Angle Valve	nos.	20.0	6,773		135,469	
2 2	Internal Water Supply System			-		-	
2 2 1	Galvanized Iron Pipe for potable water supply (GIPPWS)			-		-	
2 2 1 1	GIPPWS 15 mm dia.	lm	100.0	567		56,677	
2 2 1 2	GIPPWS 20 mm dia.	lm	200.0	840		167,907	
2 2 1 3	GIPPWS 25 mm dia.	lm	70.0	1,174		82,206	
2 2 1 4	GIPPWS 32 mm dia.	lm	20.0	1,490		29,792	
2 2 1 5	GIPPWS 40 mm dia.	lm	125.0	1,867		233,363	
2 2 1 6	GIPPWS 50 mm dia.	lm	200.0	2,244		448,840	
2 2 1 7	GIPPWS 65 mm dia.	lm	0.0	3,440		-	
2 2 1 8	GIPPWS 80 mm dia.	lm	0.0	3,851		-	
2 2 1 9	GIPPWS 80 mm dia.(underground)	lm	0.0	3,851		-	
2 2 1 10	GIPPWS 50 mm dia. (underground)	lm	20.0	2,244		44,884	
2 2 1 11	GIPPWS 20 mm dia. (underground)	lm	10.0	840		8,395	
2 2 2	Ball Valve			-		-	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
2 2 2 1	Ball Valve 15 mm dia.	nos.	8.0	3,481		27,845	
2 2 2 2	Ball Valve 20 mm dia.	nos.	15.0	4,162		62,426	
2 2 2 3	Ball Valve 32 mm dia.	nos.	1.0	8,023		8,023	
2 2 2 4	Ball Valve 40 mm dia.	nos.	5.0	10,540		52,700	
2 2 2 5	Ball Valve 50 mm dia.	nos.	2.0	15,878		31,755	
2 2 3	C.I. Butterfly Valve			-		-	
2 2 3 1	C.I. Butterfly Valve 50 mm dia.	nos.	2.0	21,137		42,274	
2 2 3 2	C.I. Butterfly Valve 65 mm dia.	nos.	0.0	22,798		-	
2 2 3 3	C.I. Butterfly Valve 80 mm dia.	nos.	0.0	24,346		-	
2 2 4	C.I. Non-Return Valve			-		-	
2 2 4 1	C.I. Non-Return Valve 50 mm dia.	nos.	2.0	33,790		67,581	
2 2 4 2	C.I. Non-Return Valve 65 mm dia.	nos.	N/A	60,561			
2 2 4 3	C.I. Non-Return Valve 80 mm dia.	nos.	0.0	94,630		-	
2 2 5	Gunmetal Automatic Air Release Valve			-		-	
2 2 5 1	Gunmetal Automatic Air Release Valve 20mm dia.	nos.	4.0	24,291		97,164	
2 2 6	Hydro Pneumatic System			-		-	
2 2 6 1	Hydro Pneumatic System 290 lpm.	set	N/A	2,644,118			
2 2 6 2	Hydro Pneumatic System 260 lpm.	set	N/A	2,644,118			
2 2 6 3	Hydro Pneumatic System 190 lpm.	set	1.0	2,546,323		2,546,323	
2 2 7	Submersible Sump Pumps			-		-	
2 2 7 1	Submersible Sump Pumps 100 lpm	set	1.0	1,811,040		1,811,040	
2 2 8 1	Pressure Gauge	nos.	2.0	6,661		13,321	
2 2 9 1	Level Controllers / Indicators	nos.	2.0	12,250		24,500	
2 2 10 1	Water Purifier Unit	nos.	1.0	126,126		126,126	
2 2 11 1	Electrical Water Instantaneous Geyser, 20Litres	nos.	1.0	53,720		53,720	
2 2 12	Gate Valves			-		-	
2 2 12 1	Gate Valves 40 mm dia	nos.	2.0	17,070		34,140	
2 2 12 2	Gate Valves 50 mm dia	nos.	2.0	23,940		47,880	
2 2 12 3	Gate Valves 65 mm dia	nos.	0.0	25,603		-	
2 2 12 4	Gate Valves 80 mm dia	nos.	0.0	42,573		-	
2 2 13	Water Meter			-		-	
2 2 13 1	Water Meter 50 mm dia.	nos.	1.0	248,267		248,267	
2 2 13 2	Water Meter 65 mm dia.	nos.	0.0	272,767		-	
2 2 13 2	Water Meter 80 mm dia.	nos.	0.0	400,575		-	
				-			

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
2 3	Sewerage Treatment			-		-	
2 3 1	Sewerage Treatment Plant (STP) (excluding concrete civil works)		0.0	-		-	
2 3 1 1	Sewerage Treatment Plant, 10 KL	nos.	1.0	3,316,937		3,316,937	
2 3 2	Septic Tank (excluding concrete civil work)		0.0	-		-	
2 3 2 1	Septic Tank Capacity 10 KLD	nos.	0.0	-		-	
2 3 2 2	Septic Tank Capacity 23 KLD	nos.	0.0	1,251,393		-	
	Sub Total 2:			-		22,151,144	19,601,922
3	Ventilation and Air-Conditioning Works			-			
3 1	Equipment			-			
3 1 1	Hiwall Split Unit			-			
3 1 1 1	Hiwall Split Unit - 2.0 TR ~ 2.2 TR	nos.	5.0	182,190		910,949	
3 1 1 2	Hiwall Split Unit - 1.5 TR ~ 1.8 TR	nos.	2.0	156,163		312,325	
3 1 1 3	Hiwall Split Unit - 1.0 TR ~ 1.2 TR	nos.	17.0	114,519		1,946,827	
3 1 1 1	Hiwall Split Unit - 2.5 TR	nos.	2.0	227,737		455,474	
3 1 1 2	Hiwall Split Unit - 2.0 TR	nos.	5.0	182,190		910,949	
3 1 1 3	Hiwall Split Unit - 1.5 TR	nos.	3.0	156,163		468,488	
3 1 1 4	Hiwall Split Unit - 1.0 TR	nos.	13.0	114,519		1,488,750	
3 1 2	DX Type Ductable Split AC units			-		-	
3 1 2 1	Ductable Split AC - 11 TR @ 4400 CFM	nos.	0.0	-		-	
3 1 2 2	Ductable Split AC - 8.5 TR @ 3400 CFM	nos.	3.0	976,016		2,928,049	
3 1 2 3	Refrigerant for above units	lot	1.0	26,027		26,027	
3 1 3	Axial Flow Fans			-		-	
3 1 3 1	Axial Flow Fans 10000 CFM @ 10-12mm WG St. Pr.	nos.	5.0	126,719		633,597	
3 1 3 2	Axial Flow Fans 8000 CFM @ 10-12mm WG St. Pr.	nos.	N/A	-			
3 1 3 3	Axial Flow Fans 8700 CFM @ 10-12mm WG St. Pr.		N/A	-			
3 1 3 4	Axial Flow Fans 6000 CFM @ 10-12mm WG St. Pr.	nos.	N/A	-			
3 1 3 5	Axial Flow Fans 4500 CFM @ 10-12mm WG St. Pr.	nos.	N/A	-			
3 1 4	Inline Fans			-		-	
3 1 4 1	Inline Fans 2000 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	79,013		79,013	
3 1 4 2	Inline Fans 1500 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	70,273		70,273	
3 1 4 3	Inline Fans 1000 CFM @ 10-12 mmWG St. Pr.	nos.	0.0	-		-	
3 1 4 4	Inline Fans 800 CFM @ 10-12 mmWG St. Pr.	nos.	0.0	-		-	
3 1 4 5	Inline Fans 600 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	45,547		45,547	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
3 1 4 6	Inline Fans 400 CFM @ 10-12 mmWG St. Pr.	nos.	4.0	32,534		130,136	
3 1 4 7	Inline Fans 300 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	28,326		28,326	
3 1 4 8	Inline Fans 200 CFM @ 10-12 mmWG St. Pr.	nos.	0.0	-		-	
3 1 4	Inline Fans 125 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	9,760		9,760	
3 1 5	Wall Mounted Propeller Fans			-		-	
3 1 5 1	Wall Mounted Propeller Fans 1500 CFM	nos.	0.0	-		-	
3 1 5 2	Wall Mounted Propeller Fans 1000 CFM	nos.	2.0	20,171		40,342	
3 1 5 3	Wall Mounted Propeller Fans 900 CFM	nos.	1.0	20,871		20,871	
3 1 5 4	Wall Mounted Propeller Fans 700 CFM	nos.	0.0	-		-	
3 1 5 5	Wall Mounted Propeller Fans 500 CFM	nos.	0.0	-		-	
3 1 5 6	Wall Mounted Propeller Fans 400 CFM	nos.	0.0	-		-	
3 1 5 7	Wall Mounted Propeller Fans 200 CFM	nos.	2.0	11,062		22,123	
3 1 5 7	Wall Mounted Propeller Fans 901 - 1050 CFM	nos.	N/A	-			
3 1 5 8	Wall Mounted Propeller Fans 1051 - 1200 CFM	nos.	N/A	-			
3 1 5 9	Wall Mounted Propeller Fans 1201 - 1350 CFM	nos.	N/A	-			
3 2	Air Distribution			-		-	
3 2 1	Ducting			-		-	
3 2 1 1	Ducting 0.6 mm thick	sqm	150.0	4,425		663,691	
3 2 1 2	Ducting 0.8 mm thick	sqm	200.0	4,945		989,030	
3 2 1 3	Ducting 1.0 mm thick	sqm	10.0	5,466		54,657	
3 2 2	Insulation			-		-	
3 2 2 1	Insulation 13 mm thick	sqm	250.0	1,497		374,140	
3 2 3	Duct Acoustic Lining			-		-	
3 2 3 1	Duct Acoustic Lining 25mm thick & 24Kg/m3 density	sqm	130.0	4,034		524,446	
3 2 4	Grilles/Diffusers			-		-	
3 2 4 1	Grilles/Diffusers Type 1 (Rate only)	sqm	1.0	28,310		28,310	
3 2 4 2	Grilles/Diffusers Type 2	sqm	3.0	19,520		58,561	
3 2 4 3	Grilles/Diffusers Type 3	nos.	12.0	6,507		78,081	
3 2 4 4	Grilles/Diffusers Type 4	nos.	N/A	-			
3 2 4 5	Grilles/Diffusers Type 5	nos.	20.0	6,507		130,136	
3 2 5	Fire Retardant connection	nos.	16.0	32,534		520,542	
3 2 6	Volume Control Duct Dampers			-		-	
3 2 6 1	Manual Volume Control Duct Dampers	sqm	1.0	18,219		18,219	
3 2 6 2	Motorized Volume Control Duct Dampers	nos.	2.0	32,534		65,068	
3 2 7	Volume Control Duct Dampers			-		-	

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
3 2 7 1	Fresh Air Louvers	sqm	17.0	6,507		110,615	
3 2 7 2	Exhaust Air Louvers	sqm	2.0	5,856		11,712	
3 3	Miscellaneous			-		-	
3 3 1	Refrigerant Piping			-		-	
3 3 1 1	Refrigerant Piping for 11 TR Units	lm	N/A	4,555			
3 3 1 2	Refrigerant Piping for 8.5 TR Units	lm	45.0	-		-	
3 3 1 3	Refrigerant Piping for 2.5 TR Units	lm	45.0	1,106		49,777	
3 3 1 4	Refrigerant Piping for 2 TR Units	lm	80.0	-		-	
3 3 1 5	Refrigerant Piping for 1.5 TR Units	lm	30.0	1,106		33,185	
3 3 1 5	Refrigerant Piping for 1 TR Units		200.0	1,106		221,230	
3 3 2	Drain Piping			-		-	
3 3 2 1	Drain Piping 40 mm dia.	lm	40.0	117		4,685	
3 3 2 2	Drain Piping 32 mm dia.	lm	25.0	104		2,603	
3 3 2 3	Drain Piping 25 mm dia.	lm	40.0	78		3,123	
3 3 3	Copper Control Wiring			-		-	
3 3 3 1	Copper Control Wiring for Ductable Units	lm	50.0	72		3,579	
3 3 3 2	Copper Control Wiring for Wall Mounted Units	lm	450.0	72		32,209	
3 3 4	Copper Power Cable			-		-	
3 3 4 1	Copper Power Cable for Ductable Units	lm	25.0	976		24,400	
3 3 4 2	Copper Power Cable for Wall Mounted Units	lm	160.0	716		114,519	
	Sub Total 3:			-		14,644,343	
Total for Bill No.3							

Schedule 4; Bill of Quantities

Bill No. 3: Bijoy Sarani Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications

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Schedule 4; Bill of Quantities

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
No. 4-3	Electrical Works and Building Management System:						
1	Electrical Works						
1 1	M V SWITCHGEAR						
1 1 1	Switch Boards / Panels						
1 1 1 1	Main Distribution Board (MDB Type I)	Nos.	1.0	5,910,727			
1 1 1 2	Main Distribution Board (MDB Type II)	Nos.		5,944,413		5,944,412.9	
1 1 1 3	Main Distribution Board (MDB Type III)	Nos.		6,300,189			
1 1 1 4	Essential Power Panel (EPP Type I)	Nos.	1.0	3,952,487			
1 1 1 5	Essential Power Panel (EPP Type II)	Nos.		3,973,087			
1 1 1 6	Essential Power Panel (EPP Type III)	Nos.		3,933,979		3,933,979.2	
1 1 1 7	Essential Power Panel (EPP Type IV)	Nos.		3,871,280			
1 1 1 8	Main lighting panel (MLP Type I) complete with ATS (Incomer-1 & Incomer-2 from MDB interlocked via ATS)	Nos.	1.0	1,923,390			
1 1 1 9	Main lighting panel (MLP Type II) complete with ATS (Incomer-1 & Incomer-2 from MDB interlocked via ATS)	Nos.		1,923,390		1,923,390.3	
1 1 1 10	Emergency Main Lighting Panel (Type I)	Nos.		263,274			
1 1 1 11	Emergency Main Lighting Panel (Type II)	Nos.		268,218		268,217.7	
1 1 1 12	Water Pump Panel (WPP) complete with ASTS (Incomer-1 from MDB and Incomer-2 from EPP shall be interlocked via ATS)	Nos.	1.0	730,939		730,939.2	
1 1 1 13	Fire Pump Panel (FPP) complete with ASTS (Incomer-1 from MDB and Incomer-2 from DG AMF Panel shall be interlocked via ATS)	Nos.	1.0	1,481,028		1,481,028.3	
1 1 1 14	ACPP Panel (Air- Conditioning Power Panel) (Type I)	Nos.	1.0	1,591,509			
1 1 1 15	ACPP Panel (Air- Conditioning Power Panel) (Type II)	Nos.		1,212,574		1,212,573.8	
1 1 1 16	ACPP Panel (Air- Conditioning Power Panel) (Type III)	Nos.		1,580,841			
1 1 1 17	ACPP Panel (Air- Conditioning Power Panel) (Type IV)	Nos.		1,207,901			
1 1 1 18	ACDB Panel (Air- Conditioning Distribution Board, Type I)	Nos.	1.0	188,802			
1 1 1 19	ACDB Panel (Air- Conditioning Distribution Board, Type-II)	Nos.		196,218			
1 1 1 20	ACDB Panel (Air- Conditioning Distribution Board, Type-III)	Nos.		188,040			
1 1 1 21	ACDB Panel (Air- Conditioning Distribution Board, Type-IV)	Nos.		198,690		198,689.7	
1 1 1 22	RADB Panel (Retail & Advertisement Distribution Board)	Nos.		269,673			
1 1 1 23	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type I)	Nos.		582,584			
1 1 1 24	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type II)	Nos.	1.0	582,584		582,584.1	
1 1 1 25	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type III)	Nos.		599,923			
1 1 1 26	ESPP Panel (Escalator Power Panel) (Type I)	Nos.	1.0	955,705			
1 1 1 27	ESPP Panel (Escalator Power Panel) (Type II)	Nos.		1,110,765			
1 1 1 28	ESPP Panel (Escalator Power Panel) (Type III)	Nos.		1,167,810		1,167,809.8	
1 1 1 29	RAP Panel (Retail & Advertisement Panel Type-I)	Nos.		1,716,860			

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks Major related Clause No. of General
				Local (BDT)	Foreign (JPY)	Local (BDT)	
1 1 1 30	RAP Panel (Retail & Advertisement Panel Type-II)	Nos.	1.0	1,684,291		1,684,290.6	
1 1 1 31	RAP Panel (Retail & Advertisement Panel Type-III)	Nos.		1,634,142			
1 1 1 32	CAPACITOR PANEL (125kVAR Type I)	Nos.	2.0	873,136		1,746,272.0	
1 1 1 33	CAPACITOR PANEL (155kVAR Type II)	Nos.		942,011			
1 1 1 34	400 Amp TPN Isolator	Nos.	1.0	68,369		68,369.3	
1 1 1 35	250 Amp TPN Isolator	Nos.	1.0	67,941		67,941.3	
1 1 1 36	125 Amp TPN Isolator	Nos.	1.0	44,959		44,959.1	
1 1 1 37	100 Amp TPN Isolator	Nos.	1.0	44,959		44,959.1	
1 1 1 38	63 Amp TPN Isolator	Nos.	7.0	16,550		115,846.7	
1 1 1 39	32 Amp TPN Isolator	Nos.	1.0	9,021		9,020.8	
1 1 1 40	100 Amp DP Isolator	Nos.	1.0	15,412		15,412.1	
1 1 1 41	25 Amp DP Isolator	Nos.	3.0	4,847		14,540.2	
1 1 1 42	Rate for Addition / Deletion of Item			0			
1 1 1 42a	TPN MCCB Type-1	Nos.	1.0	136,404		136,403.8	
1 1 1 42b	TPN MCCB Type-2	Nos.	1.0	119,539		119,539.4	
1 1 1 42c	TPN MCCB Type-3	Nos.	1.0	126,818		126,818.2	
1 1 1 42d	TPN MCCB Type-4	Nos.	1.0	109,883		109,883.2	
1 1 1 42e	TPN MCCB Type-5	Nos.	1.0	75,395		75,395.0	
1 1 1 42f	TPN MCCB Type-6	Nos.	1.0	63,257		63,257.3	
1 1 1 42g	TPN MCCB Type-7	Nos.	1.0	48,648		48,647.6	
1 1 1 43	Electrical Operating mechanism (EOM)			0			
1 1 1 43a	EOM 5-32A FP MCB 10 kA	Nos.	1.0	3,397		3,397.3	
1 1 1 43b	EOM 40-63A FP MCB 10 kA	Nos.	1.0	5,702		5,702.3	
1 1 1 43c	EOM 5-32A TP MCB 10 kA	Nos.	1.0	2,478		2,477.9	
1 1 1 43d	EOM 40-63A TP MCB 10 kA	Nos.	1.0	3,863		3,863.5	
1 1 1 43e	EOM 5-32A DP MCB 10 kA	Nos.	1.0	1,597		1,597.4	
1 1 1 43f	EOM 40-63A DP MCB 10 kA	Nos.	1.0	2,348		2,348.5	
1 1 1 43g	EOM 5-32A SP MCB 10 kA	Nos.	1.0	766		765.7	
1 1 1 43h	EOM 40-63A SP MCB 10 kA	Nos.	1.0	1,610		1,610.4	
1 1 1 43i	EOM 16-32Amp DP RCBO, 30 mA	Nos.	1.0	2,742		2,741.6	
1 1 1 43j	EOM 40-63Amp DP RCBO, 30 mA	Nos.	1.0	3,829		3,829.3	
1 1 1 44	Remote Monitoring and Control			0			
1 1 1 44a	Remote Monitoring and Control Case-1	Nos.	1.0	349,831		349,830.5	
1 1 1 44b	Remote Monitoring and Control Case-2	Nos.	1.0	232,029		232,029.0	
1 1 2	Other Accessories			0			
1 1 2 1	Safety Equipment	Set	1.0	45,778		45,777.5	
1 2	Distribution Boards			0			
1 2 1	Lighting Distribution Boards (LDB) Type-1	Nos.	7.0	363,363		2,543,541.1	
1 2 2	Lighting Distribution Boards (LDB) Type-2	Nos.	2.0	193,116		386,231.8	
1 2 3	Lighting Distribution Boards (LDB) Type-3	Nos.	3.0	335,652		1,006,955.3	
1 2 4	Lighting Distribution Boards (LDB) Type-4	Nos.	10.0	194,075		1,940,750.6	
1 2 5	Lighting Distribution Boards (LDB) Type-5	Nos.	1.0	97,522		97,521.5	
1 3	MV CABLING						

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks Major related Clause No. of General
				Local (BDT)	Foreign (JPY)	Local (BDT)	
1 3 1	Cable Supply & Laying, Al Conductor and others						
1 3 1 1	3.5 core 300 sq. mm Al Conductor	M	650.0	3,593		2,335,354.2	
1 3 1 2	3.5 core 240 sq. mm Al Conductor	M	160.0	2,911		465,726.0	
1 3 1 3	3.5 core 185 sq. mm Al Conductor	M	140.0	2,336		327,097.8	
1 3 1 4	3.5 core 150 sq. mm Al Conductor	M	1,150.0	1,890		2,173,045.6	
1 3 1 5	3.5 core 120 sq. mm Al Conductor	M	25.0	1,606		40,147.1	
1 3 1 6	3.5 core 95 sq. mm Al Conductor	M	30.0	1,312		39,347.1	
1 3 1 7	3.5 core 70 sq. mm Al Conductor	M	30.0	1,061		31,830.1	
1 3 1 8	3.5 core 50 sq. mm Al Conductor	M	185.0	745		137,844.1	
1 3 1 9	3.5 core 25 sq. mm Al Conductor	M	10.0	568		5,684.8	
1 3 1 10	4 core 95 sq. mm Al Conductor	M	25.0	1,387		34,679.4	
1 3 1 11	4 core 35 sq. mm Al Conductor	M	180.0	546		98,305.1	
1 3 1 12	4 core 25 sq. mm Al Conductor	M	1,500.0	505		757,788.5	
1 3 1 13	4 core 16 sq. mm Al Conductor	M	6,204.0	379		2,353,724.8	
1 3 1 14	4 core 10 sq. mm Al Conductor	M	550.0	285		156,480.6	
1 3 1 15	4 core 6 sq. mm Al Conductor	M	250.0	222		55,572.3	
1 3 1 16	3 core 240 sq. mm Al Conductor	M	50.0	2,402		120,117.8	
1 3 1 17	3 core 16 sq. mm Al Conductor	M	415.0	309		128,266.7	
1 3 1 18	3 core 6 sq. mm Cu Conductor	M	60.0	388		23,268.2	
1 3 1 19	3 core 4 sq. mm Cu Conductor	M	105.0	286		30,038.6	
1 3 1 20	2 core 16 sq. mm Al Conductor	M	205.0	241		49,481.6	
1 3 1 21	2 core 25 sq. mm Al Conductor	M	970.0	319		309,761.1	
1 3 1 22	2 core 6 sq. mm Cu Conductor	M	1,800.0	277		498,729.7	
1 3 1 23	2 core 4 sq. mm Cu Conductor	M	2,710.0	206		559,393.7	
1 3 1 24	3 core 35 sq. mm Al Conductor	M	30.0	431		12,926.5	
1 3 1 25	3 core 25 sq. mm Al Conductor	M	30.0	409		12,284.0	
1 3 2	Cable Jointing and Termination			0			
1 3 2 1	3.5 core 300 sq. mm Al Conductor	Set	45.0	4,739		213,248.7	
1 3 2 2	3.5 core 240 sq. mm Al Conductor	Set	10.0	4,739		47,388.6	
1 3 2 3	3.5 core 185 sq. mm Al Conductor	Set	30.0	4,739		142,165.8	
1 3 2 4	3.5 core 150 sq. mm Al Conductor	Set	10.0	4,739		47,388.6	
1 3 2 5	3.5 core 120 sq. mm Al Conductor	Set	5.0	4,739		23,694.3	
1 3 2 6	3.5 core 95 sq. mm Al Conductor	Set	5.0	4,739		23,694.3	
1 3 2 7	3.5 core 70 sq. mm Al Conductor	Set	2.0	4,739		9,477.7	
1 3 2 8	3.5 core 50 sq. mm Al Conductor	Set	2.0	2,369		4,737.5	
1 3 2 9	3.5 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,737.5	
1 3 2 10	4 core 95 sq. mm Al Conductor	Set	2.0	2,369		4,737.5	
1 3 2 11	4 core 35 sq. mm Al Conductor	Set	10.0	2,369		23,687.6	
1 3 2 12	4 core 25 sq. mm Al Conductor	Set	45.0	2,369		106,594.1	
1 3 2 13	4 core 16 sq. mm Al Conductor	Set	110.0	2,369		260,563.4	
1 3 2 14	4 core 10 sq. mm Al Conductor	Set	8.0	2,369		18,950.1	
1 3 2 15	4 core 6 sq. mm Al Conductor	Set	60.0	2,369		142,125.5	
1 3 2 16	3 core 240 sq. mm Al Conductor	Set	10.0	4,739		47,388.6	
1 3 2 17	3 core 16 sq. mm Al Conductor	Set	20.0	2,369		47,375.2	
1 3 2 18	3 core 6 sq. mm Cu Conductor	Set	10.0	2,369		23,687.6	
1 3 2 19	3 core 4 sq. mm Cu Conductor	Set	6.0	2,369		14,212.6	
1 3 2 20	2 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,737.5	
1 3 2 21	2 core 16 sq. mm Al Conductor	Set	35.0	2,369		82,906.5	
1 3 2 22	2 core 6 sq. mm Cu Conductor	Set	45.0	2,369		106,594.1	

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks Major related Clause No. of General
				Local (BDT)	Foreign (JPY)	Local (BDT)	
1 3 2 23	2 core 4 sq. mm Cu Conductor	Set	44.0	2,369		104,225.4	
1 3 2 24	3 core 35 sq. mm Al Conductor	Set	2.0	2,369		4,737.5	
1 3 2 25	3 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,737.5	
1 3 3	Conductor Cables			0			
1 3 3 1	Conductor Cables: 2 C x 1.5 sq. mm	M	100.0	120		12,041.7	
1 3 3 2	Conductor Cables: 4 C x 1.5 sq. mm	M	100.0	178		17,769.5	
1 3 3 3	Conductor Cables: 5 C x 1.5 sq. mm	M	100.0	188		18,817.0	
1 3 3 4	Conductor Cables: 6 C x 1.5 sq. mm	M	100.0	216		21,588.7	
1 3 3 5	Conductor Cables: 8 C x 1.5 sq. mm	M	100.0	279		27,916.9	
1 3 3 6	Conductor Cables 10 C x 1.5 sq. mm	M	100.0	320		32,001.2	
1 3 4	Cable Trays			0			
1 3 4 1	Cable Trays: 600 mm wide x 100 mm deep x 10 mm bend	M	200.0	3,881		776,144.4	
1 3 4 2	Cable Trays: 600 mm wide x 50 mm deep x 10 mm bend	M	280.0	3,405		953,425.3	
1 3 4 3	Cable Trays: 450 mm wide x 50 mm deep x 10 mm bend	M	50.0	2,903		145,160.3	
1 3 4 4	Cable Trays: 300 mm wide x 50 mm deep x 10 mm bend	M	230.0	2,006		461,378.2	
1 3 4 5	Cable Trays: 150 mm wide x 50mm deep x 10 mm bend	M	950.0	1,299		1,233,785.5	
1 3 4 6	Cable Trays: 150 mm wide x 40mm deep x 10 mm bend	M	50.0	1,189		59,454.0	
1 3 5	Sheet Steel Raceways (SSR)			0			
1 3 5 1	SSR: 300 mm wide & 100 mm deep	M	50.0	2,475		123,772.3	
1 3 5 2	SSR: 250 mm wide & 100 mm deep	M	50.0	2,242		112,113.2	
1 3 5 3	SSR: 300 mm wide & 50 mm deep	M	50.0	2,006		100,299.6	
1 3 5 4	SSR: 275 mm wide & 75 mm deep	M	420.0	2,242		941,750.7	
1 3 5 5	SSR: 250 mm wide & 75 mm deep	M	210.0	2,006		421,258.3	
1 3 5 6	SSR: 100 mm wide & 50 mm deep	M	50.0	1,067		53,354.1	
1 3 6	GI ladder type cable trays			0			
1 3 6 1	GI ladder type cable trays: 600 mm wide	M	230.0	1,833		421,598.1	
1 3 6 2	GI ladder type cable trays: 450 mm wide	M	50.0	1,686		84,316.5	
1 3 6 3	GI ladder type cable trays: 300 mm wide	M	100.0	1,467		146,704.6	
1 3 7	Fabricated GI Steel Work	kg	4,000.0	375		1,498,602.4	
				0			
				0			
				0			
				0			
1 4	Conduit Wiring			0			
1 4 1	First point controlled by one Nos. switch (Primary Point)	Nos.	105.0	3,016		316,680.5	
1 4 2	DB/MCB Controlled Primary Light Points	Nos.	55.0	6,439		354,138.8	
1 4 3	Secondary Light Points	Nos.	493.0	2,868		1,414,068.3	
1 4 4	DB/MCB Controlled Primary Light Points for existing Light Raceway/Conduits	Nos.	18.0	5,314		95,644.7	
1 4 5	Secondary Light Points for existing Light Raceway/Conduits	Nos.	300.0	2,484		745,272.7	
1 4 6	Ceiling Fan Points	Nos.	10.0	2,503		25,030.4	
1 4 7	Exhaust Fan Points	Nos.	22.0	3,003		66,056.7	

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
1 4 8	Wiring for Socket Outlets			0			
1 4 8 1	Wiring for Socket Outlets 1	Nos.	80.0	5,610		448,828.7	
1 4 8 2	Wiring for Socket Outlets 2	Nos.	170.0	2,725		463,183.6	
1 4 8 3	Wiring for Socket Outlets 3	Nos.	6.0	8,201		49,204.1	
1 4 8 4	Wiring for Socket Outlets 4	Nos.	95.0	7,693		730,843.9	
1 4 8 5	Wiring for Socket Outlets 5	Nos.	5.0	14,562		72,808.4	
1 4 8 6	Wiring for Socket Outlets 6	Nos.	5.0	26,524		132,618.3	
1 4 8 7	Wiring for Socket Outlets 7	Nos.	3.0	27,673		83,019.3	
1 4 8 8	Wiring for Socket Outlets 8	Nos.	3.0	29,695		89,086.3	
1 4 8 9	Wiring for Socket Outlets 9	Nos.	50.0	7,947		397,344.5	
1 4 8 10	Wiring for Socket Outlets 10	Nos.	3.0	28,937		86,810.2	
1 4 9	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires			0			
1 4 9 1	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 2.5 sqmm	M	10.0	59		590.8	
1 4 9 2	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 4.0 sqmm	M	10.0	90		899.7	
1 4 9 3	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 6.0 sqmm	M	10.0	132		1,316.0	
1 4 9 4	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 10.0 sqmm	M	10.0	205		2,054.5	
1 4 9 5	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 16.0 sqmm	M	10.0	332		3,316.8	
1 4 10	GI Conduiting			0			
1 4 10 1	GI Conduiting: 25 mm dia 1.6mm thick	M	100.0	122		12,219.8	
1 4 10 2	GI Conduiting: 32 mm dia 1.6mm thick	M	50.0	148		7,385.6	
1 4 10 3	GI Conduiting: 50 mm dia 2.0mm thick	M	25.0	207		5,169.9	
1 4 11	Modular Grid Plate mounted Switch/es and Socket/s etc.			0			
1 4 11 1	Modular Grid Plate mounted Switch/es and Socket/s etc. 1	Each	1.0	432		432.4	
1 4 11 2	Modular Grid Plate mounted Switch/es and Socket/s etc. 2	Each	1.0	759		758.7	
1 4 11 3	Modular Grid Plate mounted Switch/es and Socket/s etc. 3	Each	5.0	694		3,471.2	
1 4 11 4	Modular Grid Plate mounted Switch/es and Socket/s etc. 4	Each	1.0	924		923.9	
1 4 11 5	Modular Grid Plate mounted Switch/es and Socket/s etc. 5	Each	1.0	12,782		12,782.4	
1 4 11 6	Modular Grid Plate mounted Switch/es and Socket/s etc. 6	Each	1.0	13,573		13,573.4	
1 4 11 7	Modular Grid Plate mounted Switch/es and Socket/s etc. 7	Each	1.0	19,718		19,718.2	
1 4 11 8	Modular Grid Plate mounted Switch/es and Socket/s etc. 8	Each	1.0	10,526		10,526.5	
1 4 11 9	Modular Grid Plate mounted Switch/es and Socket/s etc. 9	Each	1.0	10,822		10,821.9	
1 4 12	3-Compartment Sheet Steel Raceways (3-Compartment SSR)			0			
1 4 12 1	3-Compartment SSR: 300mm wide and 100mm deep	M	10.0	2,845		28,454.6	
1 4 12 2	3-Compartment SSR: 150mm wide and 50mm deep	M	50.0	1,517		75,870.1	
1 4 12 3	3-Compartment SSR: 100mm wide and 50mm deep	M	100.0	1,221		122,063.6	
1 4 13	3-Compartment Ceiling Raceway	M	400.0	2,594		1,037,741.8	
1 4 14	8 SWG GI Wire for Earthing	M	500.0	71		35,585.1	
1 4 15	G.I. Box	Nos.	25.0	90		2,249.2	
				0			

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
				0			
				0			
				0			
1 5	INDOOR LIGHTING AND FANS			0			
1 5 1	INDOOR LIGHTING			0			
1 5 1 1	LED Recessed Troffer Luminaire	Nos.	132.0	10,906		1,439,651.6	
1 5 1 2	Batten with 1x18W LED Tube Type-1	Nos.	4.0	2,382		9,526.5	
1 5 1 3	Batten with 1x18W LED Tube Type-2	Nos.	18.0	2,382		42,869.2	
1 5 1 4	High Bay Narrow beam LED Luminaire	Nos.	185.0	11,439		2,116,261.9	
1 5 1 5	LED Recessed Downlighter Type-1	Nos.	4.0	1,696		6,784.3	
1 5 1 6	LED Recessed Downlighter Type-2	Nos.	15.0	2,204		33,060.3	
1 5 1 7	LED Recessed Downlighter Type-3	Nos.	62.0	2,648		164,177.5	
1 5 1 8	LED 4ft Batten Luminaire	Nos.	467.0	2,470		1,153,688.0	
1 5 1 9	LED Bulkhead Luminaire	Nos.	20.0	1,696		33,921.7	
1 5 1 10	LED recessed Luminaire	Nos.	25.0	2,435		60,872.6	
1 5 1 11	LED Surface Mounted Downlighter Type-1	Nos.	4.0	2,470		9,881.7	
1 5 1 12	LED Surface Mounted Downlighter Type-2	Nos.	14.0	3,358		47,018.0	
1 5 1 13	LED Surface Mounted Downlighter Type-3	Nos.	42.0	3,358		141,053.9	
1 5 1 14	LED High Bay Luminaire	Nos.	20.0	19,980		399,601.3	
1 5 2	FANS			0			
1 5 2 1	Bracket Fan	Nos.	1.0	8,041		8,040.9	
1 5 2 2	Ceiling Fans			0			
1 5 2 2a	Ceiling fan 1200 mm sweep with all accessories	Nos.	6.0	4,613		27,675.8	
1 5 2 2b	Ceiling fan 1400 mm sweep with all accessories	Nos.	2.0	5,166		10,331.8	
1 5 2 2c	Ceiling fan 900 mm sweep with all accessories	Nos.	2.0	3,317		6,633.6	
1 5 2 3	Air Circulator Fan	Nos.	2.0	18,169		36,337.1	
1 5 2 4	Exhaust Fan			0			
1 5 2 4a	Exhaust Fan; size 450mm dia, 1400 rpm	Nos.	10.0	14,139		141,387.0	
1 5 2 4b	Exhaust Fan; size 300mm dia, 1400 rpm	Nos.	10.0	10,157		101,571.9	
				0			
				0			
				0			
				0			
1 6	PROTECTIVE EARTHING			0			
1 6 1	Earthmat			0			
1 6 1 1	MS Rod Type 1	M	380.0	4,359		1,656,346.3	
1 6 1 2	MS Rod Type 2	Nos.	12.0	13,018		156,214.9	
1 6 1 3	Copper/GI Strips/Wire for Interconnecting the Earthing Stations, Panels, DBs etc.			0			
1 6 1 3a	Copper/GI Strips/Wire 50 mm x 10 mm GI strip	M	50.0	5,599		279,958.2	
1 6 1 3b	Copper/GI Strips/Wire 50 mm x 8 mm GI strip	M	1,430.0	4,485		6,413,810.4	
1 6 1 3c	Copper/GI Strips/Wire 50 mm x 6 mm GI strip	M	100.0	3,371		337,120.0	
1 6 1 3d	Copper/GI Strips/Wire 40 mm x 5 mm GI strip	M	100.0	2,257		225,721.8	
1 6 1 3e	Copper/GI Strips/Wire 25 mm X 6 mm GI strip	M	720.0	1,700		1,224,163.3	
1 6 1 3f	Copper/GI Strips/Wire 25 mm X 3 mm GI strip	M	100.0	865		86,474.0	

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
1 6 1 3g	Copper/GI Strips/Wire 40 x 6 mm Cu strip	M	25.0	2,703		67,570.3	
1 6 1 3h	Copper/GI Strips/Wire 25 x 6 mm Cu strip	M	25.0	1,700		42,505.7	
1 6 1 4	Extra Work 1	M	50.0	1,666		83,314.6	
1 6 1 5	Extra Work 2	Nos.	20.0	5,887		117,746.3	
1 6 1 6	Total Maintenance Free Earthing	Nos.	1.0	40,809		40,809.0	
1 6 1 7	100mm Dia DWC HDPE Pipe in 1.0 meter deep x 0.5 meter wide Trench	M	20.0	1,717		34,343.9	
				0			
				0			
				0			
1 7	LIGHTNING PROTECTION (Advanced Controlled Streamer Emission based LP sy			0			
1 7 1	Lightning Protection System with Controlled Streamer Emission (CSE)	Nos.	3.0	496,973		1,490,920.0	
1 7 2	Lightning Discharging Counter	Nos.	1.0	67,915		67,915.2	
1 7 3	Multi Layered Cable	M	475.0	7,661		3,638,911.3	
1 7 4	NP4 Grade HDPE Pipe Excavated in Ground			0			
1 7 4 1	NP4 Grade HDPE Pipe Excavated in Ground, 50mm dia.	M	10.0	218		2,175.4	
1 7 4 2	NP4 Grade HDPE Pipe Excavated in Ground, 40mm dia.	M	50.0	164		8,191.3	
1 7 4 3	NP4 Grade HDPE Pipe Excavated in Ground, 25mm dia.	M	10.0	110		1,101.1	
1 7 5	Test Link Box	Nos.	3.0	2,726		8,177.9	
1 7 6	Total Maintenance Free Earthing	Nos.	6.0	44,077		264,463.0	
				0			
				0			
1 8	EXTERNAL LIGHTING			0			
1 8 1	Hume pipes			0			
1 8 1 1	150 mm dia RCC hume pipes(Class NP-4) in road crossings and below paved areas	M	200.0	2,014		402,771.3	
1 8 1 2	GI Pipes complete with Joints and other Accessories			0			
1 8 1 2a	GI pipes Type 1	M	30.0	4,427		132,813.8	
1 8 1 2b	GI pipes Type 2	M	75.0	3,622		271,618.9	
1 8 1 2c	GI pipes Type 3	M	10.0	13,285		132,847.4	
1 8 1 2d	GI pipes Type 4	Nos.	10.0	55,233		552,325.5	
1 8 2	External Lights			0			
1 8 2 1	Poles			0			
1 8 2 1a	Poles Type 1	Nos.	1.0	49,237		49,236.7	
1 8 2 1b	Poles Type 2	Nos.	1.0	49,237		49,236.7	
1 8 2 1c	Poles Type 3	Nos.	22.0	53,221		1,170,852.3	
1 8 2 1d	Poles Type 4	Nos.	12.0	53,221		638,646.7	
1 8 2 2	LED Street Light Single Piece Type-1	Nos.	44.0	14,139		622,096.6	
1 8 2 3	LED Street Light Single Piece Type-2	Nos.	2.0	45,469		90,937.0	
1 8 3	Air Craft Warning Lights	Nos.	1.0	87,756		87,756.3	
				0			
				0			

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks Major related Clause No. of General
				Local (BDT)	Foreign (JPY)	Local (BDT)	
				0			
1 9	UNINTERRUPTED POWER SUPPLY SYSTEM			0			
1 9 1	True Parallel Redundant	Set	1.0	1,707,767		1,707,767.5	
1 9 2	2V Cell based SMF VRLA Battery Banks separate for both UPS each having 30 minutes back up time	Set	1.0	581,369		581,369.1	
				0			
				0			
				0			
				0			
				0			
1 10	DIESEL GENERATOR			0			
1 10 1	Diesel Generator Sets			0			
1 10 1 1	Diesel Generator Sets 380 KVA DG set	Set	1.0	3,771,222		3,771,221.8	
1 10 1 2	Diesel Generator Sets 320 KVA DG set	Set		0			
1 10 2	AMF PANEL	Nos.	1.0	1,226,754		1,226,754.2	
1 10 3	EXHAUST PIPING			0			
1 10 3 1	EXHAUST PIPING for DG sets of 380 KVA ratings	M	10.0	7,219		72,188.9	
1 10 3 2	EXHAUST PIPING for DG sets of 320 KVA ratings	M		0			
1 10 4	Fuel System			0			
1 10 4 1	Fuel System Part 1	Nos.		0			
1 10 4 2	Fuel System Part 2	Nos.	1.0	0			
1 10 4 3	Fuel System Part 3	Nos.	1.0	0			
1 10 4 4	Fuel System Part 4			0			
1 10 4 4a	Fuel System Part 4 for DG sets of 380 KVA ratings	Nos.		0			
1 10 4 4b	Fuel System Part 4 for DG sets of 320 KVA ratings	Nos.		0			
1 10 5	FUEL OIL PIPING			0			
1 10 5 1	FUEL OIL PIPING for DG sets of 380 KVA ratings	M		0			
1 10 5 2	FUEL OIL PIPING for DG sets of 320 KVA ratings	M	20.0	0			
				0			
				0			
				0			
				0			
	Sub Total 1:			0		89,277,400	
				0			
2	Plumbing			0			
2 1	Drainage System			0			
2 1 1	Upvc Class pipe			0			
2 1 1 1	Upvc Class pipe 32 mm dia.	lm	30.0	196		5,880.0	
2 1 1 2	Upvc Class pipe 50 mm dia.	lm	450.0	475		213,885.0	
2 1 1 3	Upvc Class pipe 75 mm dia.	lm	450.0	1,116		502,005.0	
2 1 1 4	Upvc Class pipe 100 mm dia.	lm	600.0	1,646		987,840.0	

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
2 1 1 5	Upvc Class pipe 100 mm dia. (Underground)		20.0	2,345		46,909.3	
2 1 2	Upvc 'P' or 'S' trap			0			
2 1 2 1	Upvc 'P' or 'S' trap 100 mm dia.	nos.	30.0	8,763		262,885.0	
2 1 3	Floor Drain		50.0	0			
2 1 3 1	Floor Drain Steel Grating 100mm dia.	nos.	55.0	6,125		336,875.0	
2 1 4	Galvanized Steel Pipes and Screw Fitting (GSPSF)			0			
2 1 4 1	GSPSF 32 mm dia.	lm	30.0	1,419		42,581.0	
2 1 4 2	GSPSF 40mm dia.	lm	6.0	1,779		10,672.2	
2 1 4 3	GSPSF 50 mm dia.	lm	20.0	2,138		42,760.7	
2 1 5	G.I. Pipes (Coated and Embedded)			0			
2 1 5 1	G.I. Pipes 32 mm dia.	lm	30.0	1,632		48,951.0	
2 1 5 2	G.I. Pipes 40mm dia.	lm	6.0	2,045		12,269.6	
2 1 5 3	G.I. Pipes 50 mm dia.	lm	6.0	2,458		14,749.0	
2 1 6	Cast Brass Cleanout Plug			0			
2 1 6 1	Cast Brass Cleanout Plug 50 mm dia.	nos.	2.0	10,377		20,753.1	
2 1 6 2	Cast Brass Cleanout Plug 75 mm dia.	nos.	12.0	12,970		155,643.6	
2 1 6 3	Cast Brass Cleanout Plug 100 mm dia.	nos.	6.0	18,284		109,701.2	
2 1 7	Galvanized Iron Pipe			0			
2 1 7 1	Galvanized Iron Pipe 50 mm dia.	lm	25.0	2,138		53,450.8	
2 1 7 2	Galvanized Iron Pipe 75 mm dia.	lm	30.0	3,667		110,005.0	
2 1 7 3	Galvanized Iron Pipe 100 mm dia.	lm	25.0	5,294		132,340.8	
2 1 7 4	Galvanized Iron Pipe 150 mm dia.	lm		7,007			
2 1 7 5	Galvanized Iron Pipe 200 mm dia.	lm	N/A	9,810			
2 1 8	Upvc Class E			0			
2 1 8 1	Glazed Stoneware Pipe 150 mm dia.	lm	50.0	14,948		747,413.3	
2 1 8 2	Glazed Stoneware Pipe 200 mm dia.	lm		17,751			
2 1 8 3	Glazed Stoneware Pipe 250 mm dia.	lm		22,422			
2 1 9	Non-Pressure Class R.C.C Pipe (Underground)			0			
2 1 9 1	Non-Pressure Class R.C.C. Pipe 150 mm dia.	lm	50.0	5,606		280,280.0	
2 1 9 2	Non-Pressure Class R.C.C. Pipe 200 mm dia.	lm	65.0	7,007		455,455.0	
2 1 9 3	Non-Pressure Class R.C.C. Pipe 250 mm dia.	lm	300.0	7,474		2,242,240.0	
2 1 9 4	Non-Pressure Class R.C.C. Pipe 300 mm dia.	lm	50.0	7,941		397,063.3	
2 1 9 5	Non-Pressure Class R.C.C. Pipe 400 mm dia.	lm	60.0	13,780		826,826.0	
2 1 10	S. W. Gully Trap (Upvc)			0			
2 1 10 1	S. W. Gully Trap	Each	3.0	8,876		26,626.6	
2 1 11	Road Gully Chamber (Catch basin)			0			
2 1 11 1	Road Gully Chamber 45x45x45 cm deep	Each	26.0	50,498		1,312,941.9	
2 1 11 2	Road Gully Chamber 60x60x60 cm deep.	Each		70,037			
2 1 12	Brick Masonry Square Manhole			0			
2 1 12 1	Brick Masonry Square Manhole Type 1	Each	5.0	35,969		179,846.3	
2 1 12 2	Brick Masonry Square Manhole Type 2	Each		33,634			
2 1 13	Extra Square Manhole Work			0			
2 1 13 1	Extra Square Manhole Work Type 1	lm	4.0	35,035		140,140.0	
2 1 13 2	Extra Square Manhole Work Type 2	lm		39,706			

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
2 1 14	Brick Masonry Circular Manhole (For soil & waste)			0			
2 1 14 1	Brick Masonry Circular Manhole Type 1	Each		51,385			
2 1 14 1	Brick Masonry Circular Manhole Type 2	Each	2.0	51,385		102,769.3	
2 1 15	Extra Circular Manhole Works(For soil & waste)			0			
2 1 15 1	Extra Circular Manhole Works Type 1	Each	4.0	42,042		168,168.0	
2 1 16 1	Rung Ladder for all manholes	Each	13.0	8,408		109,309.2	
2 1 17 1	Soil Trenches (External Work)	lm	120.0	4,252		510,188.0	
2 1 18 1	C.P. Brass Angle Valve	nos.	20.0	6,773		135,468.7	
2 2	Internal Water Supply System			0			
2 2 1	Galvanized Iron Pipe for potable water supply (GIPPWS)			0			
2 2 1 1	GIPPWS 15 mm dia.	lm	100.0	567		56,676.7	
2 2 1 2	GIPPWS 20 mm dia.	lm	200.0	840		167,906.7	
2 2 1 3	GIPPWS 25 mm dia.	lm	70.0	1,174		82,205.7	
2 2 1 4	GIPPWS 32 mm dia.	lm	20.0	1,490		29,792.0	
2 2 1 5	GIPPWS 40 mm dia.	lm	125.0	1,867		233,362.5	
2 2 1 6	GIPPWS 50 mm dia.	lm	40.0	2,244		89,768.0	
2 2 1 7	GIPPWS 65 mm dia.	lm	150.0	3,440		515,970.0	
2 2 1 8	GIPPWS 80 mm dia.	lm	75.0	3,851		288,855.0	
2 2 1 9	GIPPWS 80 mm dia.(underground)	lm	20.0	3,851		77,028.0	
2 2 1 10	GIPPWS 50 mm dia. (underground)	lm		2,244			
2 2 1 11	GIPPWS 20 mm dia. (underground)	lm	10.0	840		8,395.3	
2 2 2	Ball Valve			0			
2 2 2 1	Ball Valve 15 mm dia.	nos.	8.0	3,481		27,845.1	
2 2 2 2	Ball Valve 20 mm dia.	nos.	15.0	4,162		62,426.0	
2 2 2 3	Ball Valve 32 mm dia.	nos.	1.0	8,023		8,022.9	
2 2 2 4	Ball Valve 40 mm dia.	nos.	5.0	10,540		52,699.5	
2 2 2 5	Ball Valve 50 mm dia.	nos.	2.0	15,878		31,755.3	
2 2 3	C.I. Butterfly Valve			0			
2 2 3 1	C.I. Butterfly Valve 50 mm dia.	nos.		21,137			
2 2 3 2	C.I. Butterfly Valve 65 mm dia.	nos.		22,798			
2 2 3 3	C.I. Butterfly Valve 80 mm dia.	nos.	2.0	24,346		48,692.9	
2 2 4	C.I. Non-Return Valve			0			
2 2 4 1	C.I. Non-Return Valve 50 mm dia.	nos.		33,790			
2 2 4 2	C.I. Non-Return Valve 65 mm dia.	nos.	N/A	60,561			
2 2 4 3	C.I. Non-Return Valve 80 mm dia.	nos.	2.0	94,630		189,260.9	
2 2 5	Gunmetal Automatic Air Release Valve			0			
2 2 5 1	Gunmetal Automatic Air Release Valve 20mm dia.	nos.	4.0	24,291		97,163.7	
2 2 6	Hydro Pneumatic System			0			
2 2 6 1	Hydro Pneumatic System 290 lpm.	set	1.0	2,644,118		2,644,118.4	
2 2 6 2	Hydro Pneumatic System 260 lpm.	set	N/A	2,644,118			
2 2 6 3	Hydro Pneumatic System 190 lpm.	set	N/A	2,546,323			
2 2 7	Submersible Sump Pumps			0			
2 2 7 1	Submersible Sump Pumps 100 lpm	set	1.0	1,811,040		1,811,040.0	
2 2 8 1	Pressure Gauge	nos.	2.0	6,661		13,321.5	
2 2 9 1	Level Controllers / Indicators	nos.	2.0	12,250		24,500.0	

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks Major related Clause No. of General
				Local (BDT)	Foreign (JPY)	Local (BDT)	
2 2 10 1	Water Purifier Unit	nos.	1.0	126,126		126,126.0	
2 2 11 1	Electrical Water Instantaneous Geyser, 20Litres	nos.	1.0	53,720		53,720.3	
2 2 12	Gate Valves			0			
2 2 12 1	Gate Valves 40 mm dia	nos.	2.0	17,070		34,139.9	
2 2 12 2	Gate Valves 50 mm dia	nos.		23,940			
2 2 12 3	Gate Valves 65 mm dia	nos.		25,603			
2 2 12 4	Gate Valves 80 mm dia	nos.	2.0	42,573		85,145.7	
2 2 13	Water Meter			0			
2 2 13 1	Water Meter 50 mm dia.	nos.	N/A	248,267			
2 2 13 2	Water Meter 65 mm dia.	nos.		272,767			
2 2 13 2	Water Meter 80 mm dia.	nos.	1.0	400,575		400,575.0	
2 3	Sewerage Treatment			816,667			
2 3 1	Sewerage Treatment Plant (STP) (excluding concrete civil works)			0			
2 3 1 1	Sewerage Treatment Plant, 10 KL	nos.		3,316,937			
2 3 2	Septic Tank (excluding concrete civil work)			0			
2 3 2 1	Septic Tank Capacity 10 KLD	nos.		0			
2 3 2 2	Septic Tank Capacity 23 KLD	nos.	1.0	1,251,393		1,251,393.0	
	Sub Total 2:			0		19,256,799	
3	Ventilation and Air-Conditioning Works			0			
3 1	Equipment			0			
3 1 1	Hiwall Split Unit			0			
3 1 1 1	Hiwall Split Unit - 2.0 TR ~ 2.2 TR	nos.	5.0	167,317		836,585.4	
3 1 1 2	Hiwall Split Unit - 1.5 TR ~ 1.8 TR	nos.	2.0	143,415		286,829.3	
3 1 1 3	Hiwall Split Unit - 1.0 TR ~ 1.2 TR	nos.	17.0	105,171		1,787,902.4	
3 1 1 1	Hiwall Split Unit - 2.5 TR	nos.	2.0	209,146		418,292.7	
3 1 1 2	Hiwall Split Unit - 2.0 TR	nos.		167,317			
3 1 1 3	Hiwall Split Unit - 1.5 TR	nos.	7.0	143,415		1,003,902.4	
3 1 1 4	Hiwall Split Unit - 1.0 TR	nos.	14.0	105,171		1,472,390.2	
3 1 2	DX Type Ductable Split AC units			0			
3 1 2 1	Ductable Split AC - 11 TR @ 4400 CFM	nos.	3.0	896,341		2,689,024.4	
3 1 2 2	Ductable Split AC - 8.5 TR @ 3400 CFM	nos.		0			
3 1 2 3	Refrigerant for above units	lot	1.0	23,902		23,902.4	
3 1 3	Axial Flow Fans			0			
3 1 3 1	Axial Flow Fans 10000 CFM @ 10-12mm WG St. Pr.	nos.	N/A	0			
3 1 3 2	Axial Flow Fans 8000 CFM @ 10-12mm WG St. Pr.	nos.	N/A	0			
3 1 3 3	Axial Flow Fans 8700 CFM @ 10-12mm WG St. Pr.		N/A	0			
3 1 3 4	Axial Flow Fans 6000 CFM @ 10-12mm WG St. Pr.	nos.	4.0	23,902		95,609.8	
3 1 3 5	Axial Flow Fans 4500 CFM @ 10-12mm WG St. Pr.	nos.	4.0	23,902		95,609.8	
3 1 4	Inline Fans			0			
3 1 4 1	Inline Fans 2000 CFM @ 10-12 mmWG St. Pr.	nos.		0			
3 1 4 2	Inline Fans 1500 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	64,537		64,536.6	
3 1 4 3	Inline Fans 1000 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	47,805		47,804.9	
3 1 4 4	Inline Fans 800 CFM @ 10-12 mmWG St. Pr.	nos.		0			

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks Major related Clause No. of General
				Local (BDT)	Foreign (JPY)	Local (BDT)	
3 1 4 5	Inline Fans 600 CFM @ 10-12 mmWG St. Pr.	nos.		0			
3 1 4 6	Inline Fans 400 CFM @ 10-12 mmWG St. Pr.	nos.	6.0	29,878		179,268.3	
3 1 4 7	Inline Fans 300 CFM @ 10-12 mmWG St. Pr.	nos.		0			
3 1 4 8	Inline Fans 200 CFM @ 10-12 mmWG St. Pr.	nos.		0			
3 1 4	Inline Fans 125 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	8,963		8,963.4	
3 1 5	Wall Mounted Propeller Fans			0			
3 1 5 1	Wall Mounted Propeller Fans 1500 CFM	nos.		0			
3 1 5 2	Wall Mounted Propeller Fans 1000 CFM	nos.	1.0	18,524		18,524.4	
3 1 5 3	Wall Mounted Propeller Fans 900 CFM	nos.		0			
3 1 5 4	Wall Mounted Propeller Fans 700 CFM	nos.	1.0	11,951		11,951.2	
3 1 5 5	Wall Mounted Propeller Fans 500 CFM	nos.		0			
3 1 5 6	Wall Mounted Propeller Fans 400 CFM	nos.	1.0	11,354		11,353.7	
3 1 5 7	Wall Mounted Propeller Fans 200 CFM	nos.	2.0	10,159		20,317.1	
3 1 5 7	Wall Mounted Propeller Fans 901 - 1050 CFM	nos.	N/A	0			
3 1 5 8	Wall Mounted Propeller Fans 1051 - 1200 CFM	nos.	N/A	0			
3 1 5 9	Wall Mounted Propeller Fans 1201 - 1350 CFM	nos.	N/A	0			
3 2	Air Distribution			0			
3 2 1	Ducting			0			
3 2 1 1	Ducting 0.6 mm thick	sqm	150.0	4,063		609,512.2	
3 2 1 2	Ducting 0.8 mm thick	sqm	200.0	4,541		908,292.7	
3 2 1 3	Ducting 1.0 mm thick	sqm	10.0	5,020		50,195.1	
3 2 2	Insulation			0			
3 2 2 1	Insulation 13 mm thick	sqm	250.0	1,374		343,597.6	
3 2 3	Duct Acoustic Lining			0			
3 2 3 1	Duct Acoustic Lining 25mm thick & 24Kg/m3 density	sqm	130.0	3,705		481,634.1	
3 2 4	Grilles/Diffusers			0			
3 2 4 1	Grilles/Diffusers Type 1 (Rate only)	sqm	1.0	17,927		17,926.8	
3 2 4 2	Grilles/Diffusers Type 2	sqm	3.0	17,927		53,780.5	
3 2 4 3	Grilles/Diffusers Type 3	nos.	12.0	5,976		71,707.3	
3 2 4 4	Grilles/Diffusers Type 4	nos.	N/A	0			
3 2 4 5	Grilles/Diffusers Type 5	nos.	20.0	5,976		119,512.2	
3 2 5	Fire Retardant connection	nos.	16.0	29,878		478,048.8	
3 2 6	Volume Control Duct Dampers			0			
3 2 6 1	Manual Volume Control Duct Dampers	sqm	1.0	16,732		16,731.7	
3 2 6 2	Motorized Volume Control Duct Dampers	nos.	2.0	29,878		59,756.1	
3 2 7	Volume Control Duct Dampers			0			
3 2 7 1	Fresh Air Louvers	sqm	17.0	5,976		101,585.4	
3 2 7 2	Exhaust Air Louvers	sqm	2.0	5,378		10,756.1	
3 3	Miscellaneous			0			
3 3 1	Refrigerant Piping			0			
3 3 1 1	Refrigerant Piping for 11 TR Units	lm	45.0	4,183		188,231.7	
3 3 1 2	Refrigerant Piping for 8.5 TR Units	lm	N/A	0			
3 3 1 3	Refrigerant Piping for 2.5 TR Units	lm	30.0	1,016		30,475.6	
3 3 1 4	Refrigerant Piping for 2 TR Units	lm		0			

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General
3 3 1 5	Refrigerant Piping for 1.5 TR Units	lm	180.0	1,016		182,853.7	
3 3 1 5	Refrigerant Piping for 1 TR Units		200.0	1,016		203,170.7	
3 3 2	Drain Piping			0			
3 3 2 1	Drain Piping 40 mm dia.	lm	40.0	108		4,302.4	
3 3 2 2	Drain Piping 32 mm dia.	lm	25.0	96		2,390.2	
3 3 2 3	Drain Piping 25 mm dia.	lm	40.0	72		2,868.3	
3 3 3	Copper Control Wiring			0			
3 3 3 1	Copper Control Wiring for Ductable Units	lm	50.0	66		3,286.6	
3 3 3 2	Copper Control Wiring for Wall Mounted Units	lm	450.0	66		29,579.3	
3 3 4	Copper Power Cable			0			
3 3 4 1	Copper Power Cable for Ductable Units	lm	25.0	896		22,408.5	
3 3 4 2	Copper Power Cable for Wall Mounted Units	lm	160.0	657		105,170.7	
	Sub Total 3:			0		13,170,543	
	Sub Total of No. 4-4			0			
Total for Bill No.4							

Bill No. 4: Farmgate Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	major related Clause No. of General

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Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
No. 5-3	Electrical Works and Building Management System:						
1	Electrical Works						
1 1	M V SWITCHGEAR						
1 1 1	Switch Boards / Panels						
1 1 1 1	Main Distribution Board (MDB Type I)	Nos.		5,910,727			
1 1 1 2	Main Distribution Board (MDB Type II)	Nos.	1.0	5,944,413		5,944,413	
1 1 1 3	Main Distribution Board (MDB Type III)	Nos.		6,300,189			
1 1 1 4	Essential Power Panel (EPP Type I)	Nos.		3,952,487			
1 1 1 5	Essential Power Panel (EPP Type II)	Nos.	1.0	3,973,087		3,973,087	
1 1 1 6	Essential Power Panel (EPP Type III)	Nos.		3,933,979			
1 1 1 7	Essential Power Panel (EPP Type IV)	Nos.		3,871,280			
1 1 1 8	Main lighting panel (MLP Type I) complete with ATS (Incomer-1 & Incomer-2 from MDB interlocked via ATS)	Nos.		1,923,390			
1 1 1 9	Main lighting panel (MLP Type II) complete with ATS (Incomer-1 & Incomer-2 from MDB interlocked via ATS)	Nos.	1.0	1,923,390		1,923,390	
1 1 1 10	Emergency Main Lighting Panel (Type I)	Nos.		263,274			
1 1 1 11	Emergency Main Lighting Panel (Type II)	Nos.	1.0	268,218		268,218	
1 1 1 12	Water Pump Panel (WPP) complete with ASTS (Incomer-1 from MDB and Incomer-2 from EPP shall be interlocked via ATS)	Nos.	1.0	730,939		730,939	
1 1 1 13	Fire Pump Panel (FPP) complete with ASTS (Incomer-1 from MDB and Incomer-2 from DG AMF Panel shall be interlocked via ATS)	Nos.	1.0	1,481,028		1,481,028	
1 1 1 14	ACPP Panel (Air- Conditioning Power Panel) (Type I)	Nos.	1.0	1,591,509		1,591,509	
1 1 1 15	ACPP Panel (Air- Conditioning Power Panel) (Type II)	Nos.		1,212,574			
1 1 1 16	ACPP Panel (Air- Conditioning Power Panel) (Type III)	Nos.		1,580,841			
1 1 1 17	ACPP Panel (Air- Conditioning Power Panel) (Type IV)	Nos.		1,207,901			
1 1 1 18	ACDB Panel (Air- Conditioning Distribution Board, Type I)	Nos.		188,802			
1 1 1 19	ACDB Panel (Air- Conditioning Distribution Board, Type-II)	Nos.	1.0	196,218		196,218	
1 1 1 20	ACDB Panel (Air- Conditioning Distribution Board, Type-III)	Nos.		188,040			
1 1 1 21	ACDB Panel (Air- Conditioning Distribution Board, Type-IV)	Nos.		198,690			
1 1 1 22	RADB Panel (Retail & Advertisement Distribution Board)	Nos.		269,673			

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 1 1 23	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type I)	Nos.	1.0	582,584		582,584	
1 1 1 24	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type II)	Nos.		582,584			
1 1 1 25	EACDB Panel (Emergency Air-Conditioning Distribution Board) (Type III)	Nos.		599,923			
1 1 1 26	ESPP Panel (Escalator Power Panel) (Type I)	Nos.		955,705			
1 1 1 27	ESPP Panel (Escalator Power Panel) (Type II)	Nos.	1.0	1,110,765		1,110,765	
1 1 1 28	ESPP Panel (Escalator Power Panel) (Type III)	Nos.		1,167,810			
1 1 1 29	RAP Panel (Retail & Advertisement Panel Type-I)	Nos.		1,716,860			
1 1 1 30	RAP Panel (Retail & Advertisement Panel Type-II)	Nos.	1.0	1,684,291		1,684,291	
1 1 1 31	RAP Panel (Retail & Advertisement Panel Type-III)	Nos.		1,634,142			
1 1 1 32	CAPACITOR PANEL (125kVAR Type I)	Nos.	2.0	873,136		1,746,272	
1 1 1 33	CAPACITOR PANEL (155kVAR Type II)	Nos.		942,011			
1 1 1 34	400 Amp TPN Isolator	Nos.	1.0	68,369		68,369	
1 1 1 35	250 Amp TPN Isolator	Nos.	1.0	67,941		67,941	
1 1 1 36	125 Amp TPN Isolator	Nos.	2.0	44,959		89,918	
1 1 1 37	100 Amp TPN Isolator	Nos.	1.0	44,959		44,959	
1 1 1 38	63 Amp TPN Isolator	Nos.	8.0	16,550		132,396	
1 1 1 39	32 Amp TPN Isolator	Nos.	1.0	9,021		9,021	
1 1 1 40	100 Amp DP Isolator	Nos.	1.0	15,412		15,412	
1 1 1 41	25 Amp DP Isolator	Nos.	3.0	4,847		14,540	
1 1 1 42	Rate for Addition / Deletion of Item						
1 1 1 42a	TPN MCCB Type-1	Nos.	1.0	136,404		136,404	
1 1 1 42b	TPN MCCB Type-2	Nos.	1.0	119,539		119,539	
1 1 1 42c	TPN MCCB Type-3	Nos.	1.0	126,818		126,818	
1 1 1 42d	TPN MCCB Type-4	Nos.	1.0	109,883		109,883	
1 1 1 42e	TPN MCCB Type-5	Nos.	1.0	75,395		75,395	
1 1 1 42f	TPN MCCB Type-6	Nos.	1.0	63,257		63,257	
1 1 1 42g	TPN MCCB Type-7	Nos.	1.0	48,648		48,648	
1 1 1 43	Electrical Operating mechanism (EOM)						
1 1 1 43a	EOM 5-32A FP MCB 10 kA	Nos.	1.0	3,397		3,397	
1 1 1 43b	EOM 40-63A FP MCB 10 kA	Nos.	1.0	5,702		5,702	
1 1 1 43c	EOM 5-32A TP MCB 10 kA	Nos.	1.0	2,478		2,478	
1 1 1 43d	EOM 40-63A TP MCB 10 kA	Nos.	1.0	3,863		3,863	
1 1 1 43e	EOM 5-32A DP MCB 10 kA	Nos.	1.0	1,597		1,597	
1 1 1 43f	EOM 40-63A DP MCB 10 kA	Nos.	1.0	2,348		2,348	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 1 1 43g	EOM 5-32A SP MCB 10 kA	Nos.	1.0	766		766	
1 1 1 43h	EOM 40-63A SP MCB 10 kA	Nos.	1.0	1,610		1,610	
1 1 1 43i	EOM 16-32Amp DP RCBO, 30 mA	Nos.	1.0	2,742		2,742	
1 1 1 43j	EOM 40-63Amp DP RCBO, 30 mA	Nos.	1.0	3,829		3,829	
1 1 1 44	Remote Monitoring and Control						
1 1 1 44a	Remote Monitoring and Control Case-1	Nos.	1.0	349,831		349,831	
1 1 1 44b	Remote Monitoring and Control Case-2	Nos.	1.0	232,029		232,029	
1 1 2	Other Accessories						
1 1 2 1	Safety Equipment	Set	1.0	45,778		45,778	
1 2	Distribution Boards						
1 2 1	Lighting Distribution Boards (LDB) Type-1	Nos.	7.0	363,363		2,543,541	
1 2 2	Lighting Distribution Boards (LDB) Type-2	Nos.	2.0	193,116		386,232	
1 2 3	Lighting Distribution Boards (LDB) Type-3	Nos.	3.0	335,652		1,006,955	
1 2 4	Lighting Distribution Boards (LDB) Type-4	Nos.	10.0	194,075		1,940,751	
1 2 5	Lighting Distribution Boards (LDB) Type-5	Nos.	1.0	97,522		97,522	
1 3	MV CABLING						
1 3 1	Cable Supply & Laying, Al Conductor and others						
1 3 1 1	3.5 core 300 sq. mm Al Conductor	M	680.0	3,593		2,443,140	
1 3 1 2	3.5 core 240 sq. mm Al Conductor	M	230.0	2,911		669,481	
1 3 1 3	3.5 core 185 sq. mm Al Conductor	M	100.0	2,336		233,641	
1 3 1 4	3.5 core 150 sq. mm Al Conductor	M	1,120.0	1,890		2,116,357	
1 3 1 5	3.5 core 120 sq. mm Al Conductor	M	25.0	1,606		40,147	
1 3 1 6	3.5 core 95 sq. mm Al Conductor	M	30.0	1,312		39,347	
1 3 1 7	3.5 core 70 sq. mm Al Conductor	M	65.0	1,061		68,965	
1 3 1 8	3.5 core 50 sq. mm Al Conductor	M	205.0	745		152,746	
1 3 1 9	3.5 core 25 sq. mm Al Conductor	M	10.0	568		5,685	
1 3 1 10	4 core 95 sq. mm Al Conductor	M	20.0	1,387		27,743	
1 3 1 11	4 core 35 sq. mm Al Conductor	M	200.0	546		109,228	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 3 1 12	4 core 25 sq. mm Al Conductor	M	1,600.0	505		808,308	
1 3 1 13	4 core 16 sq. mm Al Conductor	M	6,250.0	379		2,371,177	
1 3 1 14	4 core 10 sq. mm Al Conductor	M	550.0	285		156,481	
1 3 1 15	4 core 6 sq. mm Al Conductor	M	250.0	222		55,572	
1 3 1 16	3 core 240 sq. mm Al Conductor	M	45.0	2,402		108,106	
1 3 1 17	3 core 16 sq. mm Al Conductor	M	454.0	309		140,321	
1 3 1 18	3 core 6 sq. mm Cu Conductor	M	60.0	388		23,268	
1 3 1 19	3 core 4 sq. mm Cu Conductor	M	105.0	286		30,039	
1 3 1 20	2 core 16 sq. mm Al Conductor	M	205.0	241		49,482	
1 3 1 21	2 core 25 sq. mm Al Conductor	M	955.0	319		304,971	
1 3 1 22	2 core 6 sq. mm Cu Conductor	M	1,800.0	277		498,730	
1 3 1 23	2 core 4 sq. mm Cu Conductor	M	2,800.0	206		577,971	
1 3 1 24	3 core 35 sq. mm Al Conductor	M	30.0	431		12,927	
1 3 1 25	3 core 25 sq. mm Al Conductor	M	30.0	409		12,284	
1 3 2	Cable Jointing and Termination						
1 3 2 1	3.5 core 300 sq. mm Al Conductor	Set	45.0	4,739		213,249	
1 3 2 2	3.5 core 240 sq. mm Al Conductor	Set	10.0	4,739		47,389	
1 3 2 3	3.5 core 185 sq. mm Al Conductor	Set	30.0	4,739		142,166	
1 3 2 4	3.5 core 150 sq. mm Al Conductor	Set	10.0	4,739		47,389	
1 3 2 5	3.5 core 120 sq. mm Al Conductor	Set	5.0	4,739		23,694	
1 3 2 6	3.5 core 95 sq. mm Al Conductor	Set	5.0	4,739		23,694	
1 3 2 7	3.5 core 70 sq. mm Al Conductor	Set	2.0	4,739		9,478	
1 3 2 8	3.5 core 50 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 9	3.5 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 10	4 core 95 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 11	4 core 35 sq. mm Al Conductor	Set	10.0	2,369		23,688	
1 3 2 12	4 core 25 sq. mm Al Conductor	Set	45.0	2,369		106,594	
1 3 2 13	4 core 16 sq. mm Al Conductor	Set	110.0	2,369		260,563	
1 3 2 14	4 core 10 sq. mm Al Conductor	Set	8.0	2,369		18,950	
1 3 2 15	4 core 6 sq. mm Al Conductor	Set	60.0	2,369		142,126	
1 3 2 16	3 core 240 sq. mm Al Conductor	Set	4.0	4,739		18,955	
1 3 2 17	3 core 16 sq. mm Al Conductor	Set	20.0	2,369		47,375	
1 3 2 18	3 core 6 sq. mm Cu Conductor	Set	4.0	2,369		9,475	
1 3 2 19	3 core 4 sq. mm Cu Conductor	Set	6.0	2,369		14,213	
1 3 2 20	2 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 21	2 core 16 sq. mm Al Conductor	Set	35.0	2,369		82,907	
1 3 2 22	2 core 6 sq. mm Cu Conductor	Set	45.0	2,369		106,594	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 3 2 23	2 core 4 sq. mm Cu Conductor	Set	44.0	2,369		104,225	
1 3 2 24	3 core 35 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 2 25	3 core 25 sq. mm Al Conductor	Set	2.0	2,369		4,738	
1 3 3	Conductor Cables						
1 3 3 1	Conductor Cables: 2 C x 1.5 sq. mm	M	100.0	120		12,042	
1 3 3 2	Conductor Cables: 4 C x 1.5 sq. mm	M	100.0	178		17,769	
1 3 3 3	Conductor Cables: 5 C x 1.5 sq. mm	M	100.0	188		18,817	
1 3 3 4	Conductor Cables: 6 C x 1.5 sq. mm	M	100.0	216		21,589	
1 3 3 5	Conductor Cables: 8 C x 1.5 sq. mm	M	100.0	279		27,917	
1 3 3 6	Conductor Cables 10 C x 1.5 sq. mm	M	100.0	320		32,001	
1 3 4	Cable Trays						
1 3 4 1	Cable Trays: 600 mm wide x 100 mm deep x 10 mm bend	M	290.0	3,881		1,125,409	
1 3 4 2	Cable Trays: 600 mm wide x 50 mm deep x 10 mm bend	M	230.0	3,405		783,171	
1 3 4 3	Cable Trays: 450 mm wide x 50 mm deep x 10 mm bend	M	50.0	2,903		145,160	
1 3 4 4	Cable Trays: 300 mm wide x 50 mm deep x 10 mm bend	M	200.0	2,006		401,198	
1 3 4 5	Cable Trays: 150 mm wide x 50mm deep x 10 mm bend	M	920.0	1,299		1,194,824	
1 3 4 6	Cable Trays: 150 mm wide x 40mm deep x 10 mm bend	M	50.0	1,189		59,454	
1 3 5	Sheet Steel Raceways (SSR)						
1 3 5 1	SSR: 300 mm wide & 100 mm deep	M	50.0	2,475		123,772	
1 3 5 2	SSR: 250 mm wide & 100 mm deep	M	50.0	2,242		112,113	
1 3 5 3	SSR: 300 mm wide & 50 mm deep	M	50.0	2,006		100,300	
1 3 5 4	SSR: 275 mm wide & 75 mm deep	M	420.0	2,242		941,751	
1 3 5 5	SSR: 250 mm wide & 75 mm deep	M	240.0	2,006		481,438	
1 3 5 6	SSR: 100 mm wide & 50 mm deep	M	50.0	1,067		53,354	
1 3 6	GI ladder type cable trays						
1 3 6 1	GI ladder type cable trays: 600 mm wide	M	205.0	1,833		375,772	
1 3 6 2	GI ladder type cable trays: 450 mm wide	M	50.0	1,686		84,317	
1 3 6 3	GI ladder type cable trays: 300 mm wide	M	100.0	1,467		146,705	
1 3 7	Fabricated GI Steel Work	kg	4,000.0	375		1,498,602	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 4	Conduit Wiring						
1 4 1	First point controlled by one Nos. switch (Primary Point)	Nos.	120.0	3,016		361,921	
1 4 2	DB/MCB Controlled Primary Light Points	Nos.	80.0	6,439		515,111	
1 4 3	Secondary Light Points	Nos.	403.0	2,868		1,155,922	
1 4 4	DB/MCB Controlled Primary Light Points for existing Light Raceway/Conduits	Nos.	30.0	5,314		159,408	
1 4 5	Secondary Light Points for existing Light Raceway/Conduits	Nos.	342.0	2,484		849,611	
1 4 6	Ceiling Fan Points	Nos.	10.0	2,503		25,030	
1 4 7	Exhaust Fan Points	Nos.	22.0	3,003		66,057	
1 4 8	Wiring for Socket Outlets						
1 4 8 1	Wiring for Socket Outlets 1	Nos.	80.0	5,610		448,829	
1 4 8 2	Wiring for Socket Outlets 2	Nos.	175.0	2,725		476,807	
1 4 8 3	Wiring for Socket Outlets 3	Nos.	6.0	8,201		49,204	
1 4 8 4	Wiring for Socket Outlets 4	Nos.	90.0	7,693		692,378	
1 4 8 5	Wiring for Socket Outlets 5	Nos.	5.0	14,562		72,808	
1 4 8 6	Wiring for Socket Outlets 6	Nos.	5.0	26,524		132,618	
1 4 8 7	Wiring for Socket Outlets 7	Nos.	3.0	27,673		83,019	
1 4 8 8	Wiring for Socket Outlets 8	Nos.	3.0	29,695		89,086	
1 4 8 9	Wiring for Socket Outlets 9	Nos.	55.0	7,947		437,079	
1 4 8 10	Wiring for Socket Outlets 10	Nos.	3.0	28,937		86,810	
1 4 9	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires						
1 4 9 1	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 2.5 sqmm	M	10.0	59		591	
1 4 9 2	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 4.0 sqmm	M	10.0	90		900	
1 4 9 3	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 6.0 sqmm	M	10.0	132		1,316	
1 4 9 4	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 10.0 sqmm	M	10.0	205		2,055	
1 4 9 5	Single Core FR Copper Conductor 1100 Volt Grade Stranded Wires: 16.0 sqmm	M	10.0	332		3,317	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 4 10	GI Conduiting						
1 4 10 1	GI Conduiting: 25 mm dia 1.6mm thick	M	100.0	122		12,220	
1 4 10 2	GI Conduiting: 32 mm dia 1.6mm thick	M	50.0	148		7,386	
1 4 10 3	GI Conduiting: 50 mm dia 2.0mm thick	M	25.0	207		5,170	
1 4 11	Modular Grid Plate mounted Switch/es and Socket/s etc.						
1 4 11 1	Modular Grid Plate mounted Switch/es and Socket/s etc. 1	Each	1.0	432		432	
1 4 11 2	Modular Grid Plate mounted Switch/es and Socket/s etc. 2	Each	1.0	759		759	
1 4 11 3	Modular Grid Plate mounted Switch/es and Socket/s etc. 3	Each	3.0	694		2,083	
1 4 11 4	Modular Grid Plate mounted Switch/es and Socket/s etc. 4	Each	1.0	924		924	
1 4 11 5	Modular Grid Plate mounted Switch/es and Socket/s etc. 5	Each	1.0	12,782		12,782	
1 4 11 6	Modular Grid Plate mounted Switch/es and Socket/s etc. 6	Each	1.0	13,573		13,573	
1 4 11 7	Modular Grid Plate mounted Switch/es and Socket/s etc. 7	Each	1.0	19,718		19,718	
1 4 11 8	Modular Grid Plate mounted Switch/es and Socket/s etc. 8	Each	1.0	10,526		10,526	
1 4 11 9	Modular Grid Plate mounted Switch/es and Socket/s etc. 9	Each	1.0	10,822		10,822	
1 4 12	3-Compartment Sheet Steel Raceways (3-Compartment SSR)						
1 4 12 1	3-Compartment SSR: 300mm wide and 100mm deep	M	10.0	2,845		28,455	
1 4 12 2	3-Compartment SSR: 150mm wide and 50mm deep	M	50.0	1,517		75,870	
1 4 12 3	3-Compartment SSR: 100mm wide and 50mm deep	M	100.0	1,221		122,064	
1 4 13	3-Compartment Ceiling Raceway	M	400.0	2,594		1,037,742	
1 4 14	8 SWG GI Wire for Earthing	M	500.0	71		35,585	
1 4 15	G.I. Box	Nos.	25.0	90		2,249	
1 5	INDOOR LIGHTING AND FANS						
1 5 1	INDOOR LIGHTING						
1 5 1 1	LED Recessed Troffer Luminaire	Nos.	132.0	10,906		1,439,652	
1 5 1 2	Batten with 1x18W LED Tube Type-1	Nos.	4.0	2,382		9,526	
1 5 1 3	Batten with 1x18W LED Tube Type-2	Nos.	18.0	2,382		42,869	
1 5 1 4	High Bay Narrow beam LED Luminaire	Nos.	185.0	11,439		2,116,262	
1 5 1 5	LED Recessed Downlighter Type-1	Nos.	4.0	1,696		6,784	
1 5 1 6	LED Recessed Downlighter Type-2	Nos.	15.0	2,204		33,060	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 5 1 7	LED Recessed Downlighter Type-3	Nos.	62.0	2,648		164,178	
1 5 1 8	LED 4ft Batten Luminaire	Nos.	467.0	2,470		1,153,688	
1 5 1 9	LED Bulkhead Luminaire	Nos.	20.0	1,696		33,922	
1 5 1 10	LED recessed Luminaire	Nos.	25.0	2,435		60,873	
1 5 1 11	LED Surface Mounted Downlighter Type-1	Nos.	4.0	2,470		9,882	
1 5 1 12	LED Surface Mounted Downlighter Type-2	Nos.	14.0	3,358		47,018	
1 5 1 13	LED Surface Mounted Downlighter Type-3	Nos.	42.0	3,358		141,054	
1 5 1 14	LED High Bay Luminaire	Nos.	20.0	19,980		399,601	
1 5 2	FANS						
1 5 2 1	Bracket Fan	Nos.	1.0	8,041		8,041	
1 5 2 2	Ceiling Fans						
1 5 2 2a	Ceiling fan 1200 mm sweep with all accessories	Nos.	6.0	4,613		27,676	
1 5 2 2b	Ceiling fan 1400 mm sweep with all accessories	Nos.	2.0	5,166		10,332	
1 5 2 2c	Ceiling fan 900 mm sweep with all accessories	Nos.	2.0	3,317		6,634	
1 5 2 3	Air Circulator Fan	Nos.	2.0	18,169		36,337	
1 5 2 4	Exhaust Fan						
1 5 2 4a	Exhaust Fan; size 450mm dia, 1400 rpm	Nos.	10.0	14,139		141,387	
1 5 2 4b	Exhaust Fan; size 300mm dia, 1400 rpm	Nos.	10.0	10,157		101,572	
1 6	PROTECTIVE EARTHING						
1 6 1	Earthmat						
1 6 1 1	MS Rod Type 1	M	430.0	4,359		1,874,287	
1 6 1 2	MS Rod Type 2	Nos.	12.0	13,018		156,215	
1 6 1 3	Copper/GI Strips/Wire for Interconnecting the Earthing Stations, Panels, DBs etc.						
1 6 1 3a	Copper/GI Strips/Wire 50 mm x 10 mm GI strip	M	50.0	5,599		279,958	
1 6 1 3b	Copper/GI Strips/Wire 50 mm x 8 mm GI strip	M	1,420.0	4,485		6,368,959	
1 6 1 3c	Copper/GI Strips/Wire 50 mm x 6 mm GI strip	M	100.0	3,371		337,120	
1 6 1 3d	Copper/GI Strips/Wire 40 mm x 5 mm GI strip	M	100.0	2,257		225,722	
1 6 1 3e	Copper/GI Strips/Wire 25 mm X 6 mm GI strip	M	1,375.0	1,700		2,337,812	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 6 1 3f	Copper/GI Strips/Wire 25 mm X 3 mm GI strip	M	100.0	865		86,474	
1 6 1 3g	Copper/GI Strips/Wire 40 x 6 mm Cu strip	M	25.0	2,703		67,570	
1 6 1 3h	Copper/GI Strips/Wire 25 x 6 mm Cu strip	M	25.0	1,700		42,506	
1 6 1 4	Extra Work 1	M	50.0	1,666		83,315	
1 6 1 5	Extra Work 2	Nos.	20.0	5,887		117,746	
1 6 1 6	Total Maintenance Free Earthing	Nos.	1.0	40,809		40,809	
1 6 1 7	100mm Dia DWC HDPE Pipe in 1.0 meter deep x 0.5 meter wide Trench	M	20.0	1,717		34,344	
1 7	LIGHTNING PROTECTION (Advanced Controlled Streamer Emission based LP system)						
1 7 1	Lightning Protection System with Controlled Streamer Emission (CSE)	Nos.	3.0	496,973		1,490,920	
1 7 2	Lightning Discharging Counter	Nos.	1.0	67,915		67,915	
1 7 3	Multi Layered Cable	M	475.0	7,661		3,638,911	
1 7 4	NP4 Grade HDPE Pipe Excavated in Ground						
1 7 4 1	NP4 Grade HDPE Pipe Excavated in Ground, 50mm dia.	M	10.0	218		2,175	
1 7 4 2	NP4 Grade HDPE Pipe Excavated in Ground, 40mm dia.	M	50.0	164		8,191	
1 7 4 3	NP4 Grade HDPE Pipe Excavated in Ground, 25mm dia.	M	10.0	110		1,101	
1 7 5	Test Link Box	Nos.	3.0	2,726		8,178	
1 7 6	Total Maintenance Free Earthing	Nos.	6.0	44,077		264,463	
1 8	EXTERNAL LIGHTING						
1 8 1	Hume pipes						
1 8 1 1	150 mm dia RCC hume pipes(Class NP-4) in road crossings and below paved areas	M	200.0	2,014		402,771	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 8 1 2	GI Pipes complete with Joints and other Accessories						
1 8 1 2a	GI pipes Type 1	M	30.0	4,427		132,814	
1 8 1 2b	GI pipes Type 2	M	75.0	3,622		271,619	
1 8 1 2c	GI pipes Type 3	M	10.0	13,285		132,847	
1 8 1 2d	GI pipes Type 4	Nos.	10.0	55,233		552,326	
1 8 2	External Lights						
1 8 2 1	Poles						
1 8 2 1a	Poles Type 1	Nos.	1.0	49,237		49,237	
1 8 2 1b	Poles Type 2	Nos.	1.0	49,237		49,237	
1 8 2 1c	Poles Type 3	Nos.	22.0	53,221		1,170,852	
1 8 2 1d	Poles Type 4	Nos.	12.0	53,221		638,647	
1 8 2 2	LED Street Light Single Piece Type-1	Nos.	44.0	14,139		622,097	
1 8 2 3	LED Street Light Single Piece Type-2	Nos.	2.0	45,469		90,937	
1 8 3	Air Craft Warning Lights	Nos.	1.0	87,756		87,756	
1 9	UNINTERRUPTED POWER SUPPLY SYSTEM						
1 9 1	True Parallel Redundant	Set	1.0	1,707,767		1,707,767	
1 9 2	2V Cell based SMF VRLA Battery Banks separate for both UPS each having 30 minutes back up time	Set	1.0	581,369		581,369	
1 10	DIESEL GENERATOR						
1 10 1	Diesel Generator Sets						
1 10 1 1	Diesel Generator Sets 380 KVA DG set	Set	1.0	3,771,222		3,771,222	
1 10 1 2	Diesel Generator Sets 320 KVA DG set	Set					
1 10 2	AMF PANEL	Nos.	1.0	1,226,754		1,226,754	
1 10 3	EXHAUST PIPING						
1 10 3 1	EXHAUST PIPING for DG sets of 380 KVA ratings	M	10.0	7,219		72,189	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
1 10 3 2	EXHAUST PIPING for DG sets of 320 KVA ratings	M					
1 10 4	Fuel System						
1 10 4 1	Fuel System Part 1	Nos.					
1 10 4 2	Fuel System Part 2	Nos.	1.0				
1 10 4 3	Fuel System Part 3	Nos.	1.0				
1 10 4 4	Fuel System Part 4						
1 10 4 4a	Fuel System Part 4 for DG sets of 380 KVA ratings	Nos.					
1 10 4 4b	Fuel System Part 4 for DG sets of 320 KVA ratings	Nos.					
1 10 5	FUEL OIL PIPING						
1 10 5 1	FUEL OIL PIPING for DG sets of 380 KVA ratings	M	20.0				
1 10 5 2	FUEL OIL PIPING for DG sets of 320 KVA ratings	M	.				
	Sub Total 1:					91,464,640	
2	Plumbing						
2 1	Drainage System						
2 1 1	Upvc Class pipe						
2 1 1 1	Upvc Class pipe 32 mm dia.	lm	30.0	196		5,880	
2 1 1 2	Upvc Class pipe 50 mm dia.	lm	350.0	475		166,355	
2 1 1 3	Upvc Class pipe 75 mm dia.	lm	500.0	1,116		557,783	
2 1 1 4	Upvc Class pipe 100 mm dia.	lm	600.0	1,646		987,840	
2 1 1 5	Upvc Class pipe 100 mm dia. (Underground)		20.0	2,345		46,909	
2 1 2	Upvc 'P' or 'S' trap						
2 1 2 1	Upvc 'P' or 'S' trap 100 mm dia.	nos.	30.0	8,763		262,885	
2 1 3	Floor Drain		55.0	6,125		336,875	
2 1 3 1	Floor Drain Steel Grating 100mm dia.	nos.	55.0	6,125		336,875	
2 1 4	Galvanized Steel Pipes and Screw Fitting (GSPSF)						
2 1 4 1	GSPSF 32 mm dia.	lm	30.0	1,419		42,581	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
2 1 4 2	GSPSF 40mm dia.	lm	6.0	1,779		10,672	
2 1 4 3	GSPSF 50 mm dia.	lm	20.0	2,138		42,761	
2 1 5	G.I. Pipes (Coated and Embedded)						
2 1 5 1	G.I. Pipes 32 mm dia.	lm	30.0	1,632		48,951	
2 1 5 2	G.I. Pipes 40mm dia.	lm	6.0	2,045		12,270	
2 1 5 3	G.I. Pipes 50 mm dia.	lm	6.0	2,458		14,749	
2 1 6	Cast Brass Cleanout Plug						
2 1 6 1	Cast Brass Cleanout Plug 50 mm dia.	nos.	2.0	10,377		20,753	
2 1 6 2	Cast Brass Cleanout Plug 75 mm dia.	nos.	12.0	12,970		155,644	
2 1 6 3	Cast Brass Cleanout Plug 100 mm dia.	nos.	6.0	18,284		109,701	
2 1 7	Galvanized Iron Pipe						
2 1 7 1	Galvanized Iron Pipe 50 mm dia.	lm	25.0	2,138		53,451	
2 1 7 2	Galvanized Iron Pipe 75 mm dia.	lm	30.0	3,667		110,005	
2 1 7 3	Galvanized Iron Pipe 100 mm dia.	lm	25.0	5,294		132,341	
2 1 7 4	Galvanized Iron Pipe 150 mm dia.	lm		7,007			
2 1 7 5	Galvanized Iron Pipe 200 mm dia.	lm	N/A	9,810			
2 1 8	Upvc Class E						
2 1 8 1	Glazed Stoneware Pipe 150 mm dia.	lm	50.0	14,948		747,413	
2 1 8 2	Glazed Stoneware Pipe 200 mm dia.	lm		17,751			
2 1 8 3	Glazed Stoneware Pipe 250 mm dia.	lm		22,422			
2 1 9	Non-Pressure Class R.C.C Pipe (Underground)						
2 1 9 1	Non-Pressure Class R.C.C. Pipe 150 mm dia.	lm	50.0	5,606		280,280	
2 1 9 2	Non-Pressure Class R.C.C. Pipe 200 mm dia.	lm	65.0	7,007		455,455	
2 1 9 3	Non-Pressure Class R.C.C. Pipe 250 mm dia.	lm	300.0	7,474		2,242,240	
2 1 9 4	Non-Pressure Class R.C.C. Pipe 300 mm dia.	lm	50.0	7,941		397,063	
2 1 9 5	Non-Pressure Class R.C.C. Pipe 400 mm dia.	lm	60.0	13,780		826,826	
2 1 10	S. W. Gully Trap (Upvc)						
2 1 10 1	S. W. Gully Trap	Each	3.0	8,876		26,627	
2 1 11	Road Gully Chamber (Catch basin)						
2 1 11 1	Road Gully Chamber 45x45x45 cm deep	Each	26.0	50,498		1,312,942	
2 1 11 2	Road Gully Chamber 60x60x60 cm deep.	Each		70,037			
2 1 12	Brick Masonry Square Manhole						
2 1 12 1	Brick Masonry Square Manhole Type 1	Each	5.0	35,969		179,846	
2 1 12 2	Brick Masonry Square Manhole Type 2	Each		33,634			

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
2 1 13	Extra Square Manhole Work						
2 1 13 1	Extra Square Manhole Work Type 1	lm	4.0	35,035		140,140	
2 1 13 2	Extra Square Manhole Work Type 2	lm		39,706			
2 1 14	Brick Masonry Circular Manhole (For soil & waste)						
2 1 14 1	Brick Masonry Circular Manhole Type 1	Each		51,385			
2 1 14 1	Brick Masonry Circular Manhole Type 2	Each	2.0	51,385		102,769	
2 1 15	Extra Circular Manhole Works(For soil & waste)						
2 1 15 1	Extra Circular Manhole Works Type 1	Each	4.0	42,042		168,168	
2 1 16 1	Rung Ladder for all manholes	Each	13.0	8,408		109,309	
2 1 17 1	Soil Trenches (External Work)	lm	120.0	4,252		510,188	
2 1 18 1	C.P. Brass Angle Valve	nos.	20.0	6,773		135,469	
2 2	Internal Water Supply System						
2 2 1	Galvanized Iron Pipe for potable water supply (GIPPWS)						
2 2 1 1	GIPPWS 15 mm dia.	lm	100.0	567		56,677	
2 2 1 2	GIPPWS 20 mm dia.	lm	200.0	840		167,907	
2 2 1 3	GIPPWS 25 mm dia.	lm	70.0	1,174		82,206	
2 2 1 4	GIPPWS 32 mm dia.	lm	20.0	1,490		29,792	
2 2 1 5	GIPPWS 40 mm dia.	lm	125.0	1,867		233,363	
2 2 1 6	GIPPWS 50 mm dia.	lm	40.0	2,244		89,768	
2 2 1 7	GIPPWS 65 mm dia.	lm	150.0	3,440		515,970	
2 2 1 8	GIPPWS 80 mm dia.	lm	75.0	3,851		288,855	
2 2 1 9	GIPPWS 80 mm dia.(underground)	lm	20.0	3,851		77,028	
2 2 1 10	GIPPWS 50 mm dia. (underground)	lm		2,244			
2 2 1 11	GIPPWS 20 mm dia. (underground)	lm	10.0	840		8,395	
2 2 2	Ball Valve						
2 2 2 1	Ball Valve 15 mm dia.	nos.	8.0	3,481		27,845	
2 2 2 2	Ball Valve 20 mm dia.	nos.	15.0	4,162		62,426	
2 2 2 3	Ball Valve 32 mm dia.	nos.	1.0	8,023		8,023	
2 2 2 4	Ball Valve 40 mm dia.	nos.	5.0	10,540		52,700	
2 2 2 5	Ball Valve 50 mm dia.	nos.	2.0	15,878		31,755	
2 2 3	C.I. Butterfly Valve						
2 2 3 1	C.I. Butterfly Valve 50 mm dia.	nos.		21,137			
2 2 3 2	C.I. Butterfly Valve 65 mm dia.	nos.		22,798			
2 2 3 3	C.I. Butterfly Valve 80 mm dia.	nos.	2.0	24,346		48,693	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
2 2 4	C.I. Non-Return Valve						
2 2 4 1	C.I. Non-Return Valve 50 mm dia.	nos.		33,790			
2 2 4 2	C.I. Non-Return Valve 65 mm dia.	nos.	N/A	60,561			
2 2 4 3	C.I. Non-Return Valve 80 mm dia.	nos.	2.0	94,630		189,261	
2 2 5	Gunmetal Automatic Air Release Valve						
2 2 5 1	Gunmetal Automatic Air Release Valve 20mm dia.	nos.	4.0	24,291		97,164	
2 2 6	Hydro Pneumatic System						
2 2 6 1	Hydro Pneumatic System 290 lpm.	set	1.0	2,644,118		2,644,118	
2 2 6 2	Hydro Pneumatic System 260 lpm.	set	N/A	2,644,118			
2 2 6 3	Hydro Pneumatic System 190 lpm.	set	N/A	2,546,323			
2 2 7	Submersible Sump Pumps						
2 2 7 1	Submersible Sump Pumps 100 lpm	set	1.0	1,811,040		1,811,040	
2 2 8 1	Pressure Gauge	nos.	2.0	6,661		13,321	
2 2 9 1	Level Controllers / Indicators	nos.	2.0	12,250		24,500	
2 2 10 1	Water Purifier Unit	nos.	1.0	126,126		126,126	
2 2 11 1	Electrical Water Instantaneous Geyser, 20Litres	nos.	1.0	53,720		53,720	
2 2 12	Gate Valves						
2 2 12 1	Gate Valves 40 mm dia	nos.	2.0	17,070		34,140	
2 2 12 2	Gate Valves 50 mm dia	nos.		23,940			
2 2 12 3	Gate Valves 65 mm dia	nos.		25,603			
2 2 12 4	Gate Valves 80 mm dia	nos.	2.0	42,573		85,146	
2 2 13	Water Meter						
2 2 13 1	Water Meter 50 mm dia.	nos.	N/A	248,267			
2 2 13 2	Water Meter 65 mm dia.	nos.		272,767			
2 2 13 2	Water Meter 80 mm dia.	nos.	1.0	400,575		400,575	
2 3	Sewerage Treatment			816,667			
2 3 1	Sewerage Treatment Plant (STP) (excluding concrete civil works)						
2 3 1 1	Sewerage Treatment Plant, 10 KL	nos.		3,316,937			
2 3 2	Septic Tank (excluding concrete civil work)						
2 3 2 1	Septic Tank Capacity 10 KLD	nos.					
2 3 2 2	Septic Tank Capacity 23 KLD	nos.	1.0	1,251,393		1,251,393	
	Sub Total 2:					19,601,922	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
3	Ventilation and Air-Conditioning Works						
3 1	Equipment						
3 1 1	Hiwall Split Unit						
3 1 1 1	Hiwall Split Unit - 2.0 TR ~ 2.2 TR	nos.	5.0	167,317		836,585	
3 1 1 2	Hiwall Split Unit - 1.5 TR ~ 1.8 TR	nos.	2.0	143,415		286,829	
3 1 1 3	Hiwall Split Unit - 1.0 TR ~ 1.2 TR	nos.	17.0	105,171		1,787,902	
3 1 1 1	Hiwall Split Unit - 2.5 TR	nos.	4.0	209,146		836,585	
3 1 1 2	Hiwall Split Unit - 2.0 TR	nos.		167,317			
3 1 1 3	Hiwall Split Unit - 1.5 TR	nos.	8.0	143,415		1,147,317	
3 1 1 4	Hiwall Split Unit - 1.0 TR	nos.	14.0	105,171		1,472,390	
3 1 2	DX Type Ductable Split AC units						
3 1 2 1	Ductable Split AC - 11 TR @ 4400 CFM	nos.					
3 1 2 2	Ductable Split AC - 8.5 TR @ 3400 CFM	nos.	3.0	896,341		2,689,024	
3 1 2 3	Refrigerant for above units	lot	1.0	23,902		23,902	
3 1 3	Axial Flow Fans						
3 1 3 1	Axial Flow Fans 10000 CFM @ 10-12mm WG St. Pr.	nos.	N/A				
3 1 3 2	Axial Flow Fans 8000 CFM @ 10-12mm WG St. Pr.	nos.	4.0	95,610		382,439	
3 1 3 3	Axial Flow Fans 8700 CFM @ 10-12mm WG St. Pr.		4.0	101,585		406,341	
3 1 3 4	Axial Flow Fans 6000 CFM @ 10-12mm WG St. Pr.	nos.	N/A				
3 1 3 5	Axial Flow Fans 4500 CFM @ 10-12mm WG St. Pr.	nos.	N/A				
3 1 4	Inline Fans						
3 1 4 1	Inline Fans 2000 CFM @ 10-12 mmWG St. Pr.	nos.					
3 1 4 2	Inline Fans 1500 CFM @ 10-12 mmWG St. Pr.	nos.					
3 1 4 3	Inline Fans 1000 CFM @ 10-12 mmWG St. Pr.	nos.					
3 1 4 4	Inline Fans 800 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	50,195		50,195	
3 1 4 5	Inline Fans 600 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	41,829		41,829	
3 1 4 6	Inline Fans 400 CFM @ 10-12 mmWG St. Pr.	nos.	2.0	29,878		59,756	
3 1 4 7	Inline Fans 300 CFM @ 10-12 mmWG St. Pr.	nos.					
3 1 4 8	Inline Fans 200 CFM @ 10-12 mmWG St. Pr.	nos.	2.0	17,927		35,854	
3 1 4	Inline Fans 125 CFM @ 10-12 mmWG St. Pr.	nos.	1.0	8,963		8,963	
3 1 5	Wall Mounted Propeller Fans						
3 1 5 1	Wall Mounted Propeller Fans 1500 CFM	nos.	1.0	21,512		21,512	
3 1 5 2	Wall Mounted Propeller Fans 1000 CFM	nos.	2.0	18,524		37,049	

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
3 1 5 3	Wall Mounted Propeller Fans 900 CFM	nos.					
3 1 5 4	Wall Mounted Propeller Fans 700 CFM	nos.	1.0	15,537		15,537	
3 1 5 5	Wall Mounted Propeller Fans 500 CFM	nos.					
3 1 5 6	Wall Mounted Propeller Fans 400 CFM	nos.	1.0	11,951		11,951	
3 1 5 7	Wall Mounted Propeller Fans 200 CFM	nos.	2.0	10,159		20,317	
3 1 5 7	Wall Mounted Propeller Fans 901 - 1050 CFM	nos.	N/A				
3 1 5 8	Wall Mounted Propeller Fans 1051 - 1200 CFM	nos.	N/A				
3 1 5 9	Wall Mounted Propeller Fans 1201 - 1350 CFM	nos.	N/A				
3 2	Air Distribution						
3 2 1	Ducting						
3 2 1 1	Ducting 0.6 mm thick	sqm	150.0	4,063		609,512	
3 2 1 2	Ducting 0.8 mm thick	sqm	200.0	4,541		908,293	
3 2 1 3	Ducting 1.0 mm thick	sqm	10.0	4,542		45,424	
3 2 2	Insulation						
3 2 2 1	Insulation 13 mm thick	sqm	250.0	1,374		343,598	
3 2 3	Duct Acoustic Lining						
3 2 3 1	Duct Acoustic Lining 25mm thick & 24Kg/m3 density	sqm	130.0	3,705		481,634	
3 2 4	Grilles/Diffusers						
3 2 4 1	Grilles/Diffusers Type 1 (Rate only)	sqm	1.0	17,927		17,927	
3 2 4 2	Grilles/Diffusers Type 2	sqm	3.0	17,927		53,780	
3 2 4 3	Grilles/Diffusers Type 3	nos.	12.0	5,976		71,707	
3 2 4 4	Grilles/Diffusers Type 4	nos.					
3 2 4 5	Grilles/Diffusers Type 5	nos.	20.0	5,976		119,512	
3 2 5	Fire Retardant connection	nos.	16.0	29,878		478,049	
3 2 6	Volume Control Duct Dampers						
3 2 6 1	Manual Volume Control Duct Dampers	sqm	1.0	16,732		16,732	
3 2 6 2	Motorized Volume Control Duct Dampers	nos.	2.0	29,878		59,756	
3 2 7	Volume Control Duct Dampers						
3 2 7 1	Fresh Air Louvers	sqm	17.0	5,976		101,585	
3 2 7 2	Exhaust Air Louvers	sqm	2.0	5,378		10,756	
3 3	Miscellaneous						
3 3 1	Refrigerant Piping						

Schedule 4; Bill of Quantities

Bill No. 5: Karwan Bazaar Station: HVAC, Plumbing and Fire fighting

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No.
3 3 1 1	Refrigerant Piping for 11 TR Units	lm	N/A				
3 3 1 2	Refrigerant Piping for 8.5 TR Units	lm	40.0	4,183		167,317	
3 3 1 3	Refrigerant Piping for 2.5 TR Units	lm	100.0	1,016		101,585	
3 3 1 4	Refrigerant Piping for 2 TR Units	lm		1,016			
3 3 1 5	Refrigerant Piping for 1.5 TR Units	lm	180.0	1,016		182,854	
3 3 1 5	Refrigerant Piping for 1 TR Units		220.0	1,016		223,488	
3 3 2	Drain Piping						
3 3 2 1	Drain Piping 40 mm dia.	lm	40.0	108		4,302	
3 3 2 2	Drain Piping 32 mm dia.	lm	25.0	96		2,390	
3 3 2 3	Drain Piping 25 mm dia.	lm	40.0	72		2,868	
3 3 3	Copper Control Wiring						
3 3 3 1	Copper Control Wiring for Ductable Units	lm	50.0	66		3,287	
3 3 3 2	Copper Control Wiring for Wall Mounted Units	lm	450.0	66		29,579	
3 3 4	Copper Power Cable						
3 3 4 1	Copper Power Cable for Ductable Units	lm	25.0	896		22,409	
3 3 4 2	Copper Power Cable for Wall Mounted Units	lm	160.0	657		105,171	
	Sub Total 3:					14,335,796	
	Sub Total of No. 5-4						
Total for Bill No.5							

Schedule 4; Bill of Quantities

Bill No. 8: Tests on Completion

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Major related Clause No. of General Specifications
8 1	Pre-Commissioning Tests						25
8 1 1	Stand-By Diesel Generator Sets.	LS	1	2,078,250		2,078,250	
8 1 2	HVAC System	LS	1	305,625		305,625	
8 1 3	Plumbing & Fire Fighting Work	LS	1	183,375		183,375	
8 1 4	Electrical Work	LS	1	489,000		489,000	
	Sub-Total 8.1			0		3,056,250	
8 2	Commissioning Tests			0			25
8 2 1	Commissioning Tests For LPS System	LS	1	138,125		138,125	
	Sub-Total 8.2			0		138,125	
8 3	Trial Operation			0			25
8 3 1	Trial Operation	LS	1	305,625		305,625	
	Sub-Total 8.3			0		305,625	
Total for Bill No.8						3,500,000	

**Schedule 4; Bill of Quantities****Bill No. 8: Tests on Completion**

Pay Item No.	Description	Unit	Quantity	Rate		Amount	Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	
							Major related Clause No. of General Specifications

Schedule 4; Bill of Quantities (Maintenance Support _ HVAC)

Bill No.10: Maintenance Support by the Contractor

Pay Item No.	Description	Unit	Quantity	Rate		Amount		Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Foreign (JPY)	Major related Clause No. of General Specifications
10 1	Submission of Maintenance Support Plan	LS	1	14,305		14,305		26
10 2	Maintenance Support by the Contractor	Month	18	51,380		924,840		26
Total for Bill No.10						939,145		

Schedule 4; Bill of Quantities (Maintenance Support _ HVAC)

Bill No.10: Maintenance Support by the Contractor

Pay Item No.	Description	Unit	Quantity	Rate		Amount		Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Foreign (JPY)	Major related Clause No. of General Specifications

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Schedule 4; Bill of Quantities (Maintenance Support _ Plumbing)

Bill No.10: Maintenance Support by the Contractor

Pay Item No.	Description	Unit	Quantity	Rate		Amount		Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Foreign (JPY)	Major related Clause No. of General Specifications
10 1	Submission of Maintenance Support Plan	LS	1	14,680		14,680		26
10 2	Maintenance Support by the Contractor	Month	18	73,400		1,321,200		26
Total for Bill No.10						1,335,880		

Schedule 4; Bill of Quantities (Maintenance Support _ Plumbing)

Bill No.10: Maintenance Support by the Contractor

Pay Item No.	Description	Unit	Quantity	Rate		Amount		Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Foreign (JPY)	Major related Clause No. of General Specifications

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Schedule 4; Bill of Quantities (Maintenance Support _ Electrical)

Bill No.10: Maintenance Support by the Contractor

Pay Item No.	Description	Unit	Quantity	Rate		Amount		Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Foreign (JPY)	Major related Clause No. of General Specifications
10 1	Submission of Maintenance Support Plan	LS	1	16,515		16,515		26
10 2	Maintenance Support by the Contractor	Month	18	150,470		2,708,460		26
Total for Bill No.10						2,724,975		

Schedule 4; Bill of Quantities (Maintenance Support _ Electrical)

Bill No.10: Maintenance Support by the Contractor

Pay Item No.	Description	Unit	Quantity	Rate		Amount		Remarks
				Local (BDT)	Foreign (JPY)	Local (BDT)	Foreign (JPY)	Major related Clause No. of General Specifications

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