

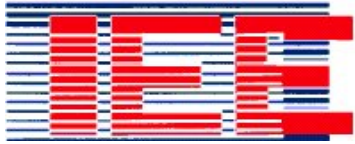


Glen Vally Beach Club Clubhouse

Project No : **GVBC**
Document No : **1 of 5**
Revision : **original**
Issue : **estimate**
Issue Date : **5/2/2008**
Company : **Your name here**
Attention : **You**
Job price : **TBD**

We are pleased to quote on the controls portion of this job.
Please refer to the sheet named "Bill of Material" to see what we are including in this proposal.

Jeff Hurwitz



INTERSTATE HVAC CONTROLS

Project : Clubhouse	Document: Building Automation System Data Point Summary	Rev History: T0 dated 05/02/08
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REVISION HISTORY

REVISION	DATE	REASON FOR ISSUE	PREPARED BY
T1	5/2/2008	For Estimation	Jeff Hurwitz

REFERENCE DOCUMENTATION

This document is prepared based on the Technical Specification sent to us vide e-mail dated 4/30/08
Section 15985 - Sequence of Operation
Section 15975 - Building Management System
Schedule of equipment vide dwg no M6.1 CH & M6.2 CH
Air Riser Diagram vide Dwg no M5.4 & M 5.5
Control Schematics vide Dwg ni. M5.1Ch, M5.2 CH & M5.3 CH

COMMENTS



INTERSTATE HVAC CONTROLS

Customer **Your Name Here**

Project **Clubhouse**

SUMMARY OF DATA POINTS & CONTROLLER SELECTION

#	Panel Reference	Location	System / Application	Data Point						High Level Interface	Interface Type
				AI	DI	AO	DO	Total Hardware Point			
				25	29	7	30	91			
1		Roof	Roof Top Unit -1	1	1		1	3	1	BACnet IP	
2		Roof	Roof Top Unit -2	1	1		1	3	1	BACnet IP	
3		Roof	Roof Top Unit -3	1	1		1	3	1	BACnet IP	
4		Roof	Roof Top Unit -4	1	1		1	3	1	BACnet IP	
5		Roof	Roof Top Unit -5	1	1		1	3	1	BACnet IP	
6		Roof	Roof Top Unit -6	1	1		1	3	1	BACnet IP	
7		Roof	Condenser Water System - RTU	5	6	2	3	16		NONE	
8		Roof	Hot Water System	13	8	4	11	36	3	BACnet IP	
9		Roof	Exhaust Fans		8		10	18		NONE	
10			Convectors	1	1	1		3			
11		Roof	MAU-1						1	BACnet IP	



Customer: Your Name Here
Project: Clubhouse

SUMMARY OF SENSORS & EQUIPMENT

SI	Equipment /Sensors	Make	Model	Total Qty	Rooftop Unit-Typical	RTU CNDW SYS	Hot Water Sys	Exhaust Fans	Convectors
35	2-Way Solenoid Valve								
36	3-Way Valve with On/Off Actuator								
9	Damper Actuator (On/ Off)	Johnson Controls	M9108-AGC-2	3				3	
38	Smoke Control Damper								
10	Variable Frequency Drive (Inverter)	Danfoss	VLT-6000	1		1			
11	VAV Boxes								
41	Heat Meter (kWh)								
42	Gas Meter (m3)								
43	Water Meter (m3)								
44	Multifunctional Meter								
	VAV Type-A (300 CFM)	Johnson Controls		1					
	VAV Type-B (500 CFM)	Johnson Controls		3					
	VAV Type-C (700 CFM)	Johnson Controls							
	VAV Type-D (900 CFM)	Johnson Controls		5					
	VAV Type-E (1600 CFM)	Johnson Controls		2					
	VAV Type-F (2200 CFM)	Johnson Controls		1					
	VAV Type-G (3000 CFM)	Johnson Controls							



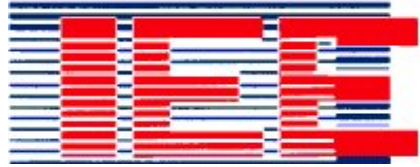
INTERSTATE HVAC CONTROLS

Project Clubhouse
Customer Glen Vally Beach Club

Date
Rev T0

Bill of Material

SI	Description	Model No.	Qty / Engineering Hours	
1	BMS Workstation & Software			
1.01	BMS Workstation - P4, 2.8 Ghz, 200 GB HDD, 1 GB RAM, Windows XP Preloaded, with 17" LCD monitor (As per the Spec document ; Page 15900-6)		1	
1.02	UPS (2 KVA)		1	
1.03	LaserJet B/W printer		1	
1.04	Laptop (Refer Spec Document 15975-23)		1	
1.03	FX Workbench Software (Refer Spec Document 15975-7)	LP-FXTSUPP-0	1	
1.04	FX Builder Tool (Refer Spec Document 15975-7)	LP-FXTEXP-0	1	
2	Supervisory & Field Controllers			
2.01	FX-40 Supervisor	LP-FX4020A-0	1	
2.02	DDC (Field Controllers)			
		BACNET FX 14	LP-FX14D14-000C	2
		BACNET FX 07	LP-FX07D04-000C	10
2.03	Panels with Internal wiring, Transformers, Relays, Terminal Blocks		10	
2.04	Labour for Panel Fabrication		1	
3	Field Sensors / Transmitters etc			
3.01	Immersion Temperature Sensor	TE-631AM-1 + WZ-1000-5	20	
3.02	Space Temperature sensor	TE-6314P-1	1	
3.03	Differential Pressure Transmitter (Water)	560 AutoTran	2	
3.04	Water flow switch	F61MB-1	6	
3.05	Current Switch	H-800	20	
3.06	Thermostat	T2000ECF-0C0	1	
3.07	2-way Valve with Modulating Actuator (for Convectior)		1	
3.07	2-way Valve with Modulating Actuator (1no. 65 NB for HWS)		1	



INTERSTATE HVAC CONTROLS

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SI	Description	Model No.	Qty / Engineering Hours
	VAV Type-E (1600 CFM)		2
	VAV Type-F (2200 CFM)		1
	VAV Type-G (3000 CFM)		
4	Engineering Labour		
	4.01 Application Engineering Document; Document will include		1
	Control Schematic drawings		
	Sequence of Operation		
	Wiring Diagrams		
	Valve & Damper Schedule		
	4.02 Graphics		1
	4.03 Field controllers Programming		1
	4.04 Supervisory Controller Programming		1
	4.05 Startup & Commissioning		1
	4.05 O &M Documenation		1
	4.06 Training (refer Specification doc page 15975-24)		1
	4.07 Warranty Labour		1