

**6.03.10 APPENDIX - TYPICAL I/O POINTS SCHEDULE**  
**DESIGN AND CONSTRUCTION STANDARD**

POINTS DESCRIPTION	ANALOG INPUT	ANALOG OUTPUT	DIGITAL INPUT	DIGITAL OUTPUT	CALCULATED VALUE	SERIAL DATA LINK	NOTES
<b>Building</b>							
Alarm Flood/Moisture Switch*			X				
Steam/Condensate Flow Meter	X				X		
Domestic Water Meter Flow	X				X		
Steam Condensate Temperature	X						
Steam Cond Receiver Level	X						
Fin Water Receiver Level	X						
Tunnel Sump Level	X						
Waste Water Sump Level			X				
Sump Motor Failure			X				
UPS Voltage	X						
DC Power Supply Voltage	X						
Secondary Util Pwr, Switchgear Status			X				
Fire Alarm, General Alarm Status			X				By Alarm System
Steam Low Pressure	X						
Heating Water Temperature	X						
Domestic Hot Water Temperature	X						
Domestic City Water Pressure	X						
Domestic Booster Pump Differential Pressure	X						
Instrument Air Pressure, High / Low	X						
Outside Air Temperature	X						
Outside Air Humidity	X						
* List Rooms To Monitor							
<b>Chilled Water</b>							
CHW Flow	X					X	
Primary CHW Supply Temp	X						
Primary CHW Return Temp	X						
Pump VFD, Speed		X					
Pump VFD, kW	X						
Pump VFD, Status			X				
Pump Start/Stop				X			
Pump Status Contact (Aux or DP)			X				
Chiller Status			X				
Chiller Start Stop				X			
CHWS Setpoint		X					
<b>Heating Hot Water</b>							
HW Flow	X					X	
HWS Temp	X						
HWR Temp	X						
Pump VFD, Speed		X					
Pump VFD, kW	X						
Pump VFD, Status			X				
Pump Start/Stop				X			
Pump Status Contact (Aux or DP)			X				
Boiler Start Stop				X			
Boiler Status			X				
HW Setpoint	X						
<b>Single Zone System</b>							
Supply Temperature	X						
Return Temperature	X						
Space Temperature	X						
Mixed Air Temperature	X						Averaging
Override				X			
Fan Start/Stop				X			
Fan Status Contact			X				
CHW Valve Position Signal		X					
HW Valve Position Signal		X					
Outside Air Damper Control	X	X					
Return Air Damper Control	X	X					
Relief Air Damper Control	X	X					
Air Filters			X				DP Switch
Fan Speed Control						X	
<b>Supply Fan - Variable Volume</b>							
Fan VFD, Speed						X	
Fan VFD, kW						X	
Fan VFD, Status (DPS)						X	
Fan Start/Stop				X		X	
Fan Status Contact			X				

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Fan Speed Control						X	
<b>Supply Fan - Constant Volume</b>							
Fan Start/Stop				X			
Fan Status Contact (DPS)			X				
<b>Cold Deck Fan System</b>							
Cold Deck Temperature	X						
Mixed Air Temperature	X						Averaging
Outside Air Temperature	X						
Fan VFD, Speed						X	
Fan VFD, kW						X	
Fan VFD, Status						X	
Fan Start/Stop				X			
Fan Status Contact			X				
Fan Speed Control						X	
Cooling Control	X	X					
Air Filters			X				DP Switch
<b>Hot Deck Fan System</b>							
Hot Deck Temperature	X						
Mixed Air Temperature	X						Averaging
Fan VFD, Speed						X	
Fan VFD, kW						X	
Fan VFD, Status						X	
Fan Start/Stop				X			
Fan Status Contact			X				
Fan Speed Control						X	
Heating Control	X	X					
Humidifier Control	X	X					
Air Filters			X				DP Switch
<b>Return Air Fan System</b>							
Fan VFD, Speed						X	
Fan VFD, kW						X	
Fan VFD, Status						X	
Fan Start/Stop				X			
Fan Status Contact			X				
Fan Speed Control						X	
Floor Damper Control	X	X					
<b>Preheat System</b>							
Coil Discharge Temperature	X						
Heating Control, 1/3	X						
Heating Control, 2/3	X						
Damper Control	X	X					
<b>Mixing Damper System</b>							
Outside Air	X	X					
Return Air	X	X					
Relief Air	X	X					
<b>Exhaust Fan - Variable Volume</b>							
Fan VFD, Speed						X	
Fan VFD, kW						X	
Fan VFD, Status (DPS)						X	
Fan Start/Stop				X			
Fan Status Contact			X				
Fan Speed Control						X	
<b>Exhaust Fan - Constant Voume</b>							
Fan Start/Stop				X			
Fan Local Overrides			X				
Fan Status Contact			X				
Damper Control	X	X					
<b>Zone Control/Monitoring</b>							
Temperature	X						
Humidity	X						
Pressure	X						
Override				X			
<b>Energy Wheels</b>							
Total Energy Wheel	X						

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Sensible Energy Wheel	X						
Revolution Alarm			X				
Plenum Differential Pressure	X						
<b>Air flow</b>							
Cold Duct	X				X		
Hot Duct	X				X		
Neutral Duct	X				X		
Hood Exhaust	X				X		
General Exhaust	X				X		
Building Relief	X				X		
<b>Smoke Management</b>							
Schedule Override				X			

**Notes:**

1. List is not all inclusive, and is intended to convey representative sample points list for a typical project. Engineer responsible to develop project specific points list required for control, supervision, and interoperability of equipment and systems consistent with Owner's requirements.
2. List does not include software alarms based on analog inputs.
3. List does not include system setpoints.