

# Windsor School District Palmer Middle School

Windsor, New York

Application Engineering by Randy Langille

Engineer/Architect      M/E Engineering



Mechanical Contractor      Picciano

Job Number      P8315

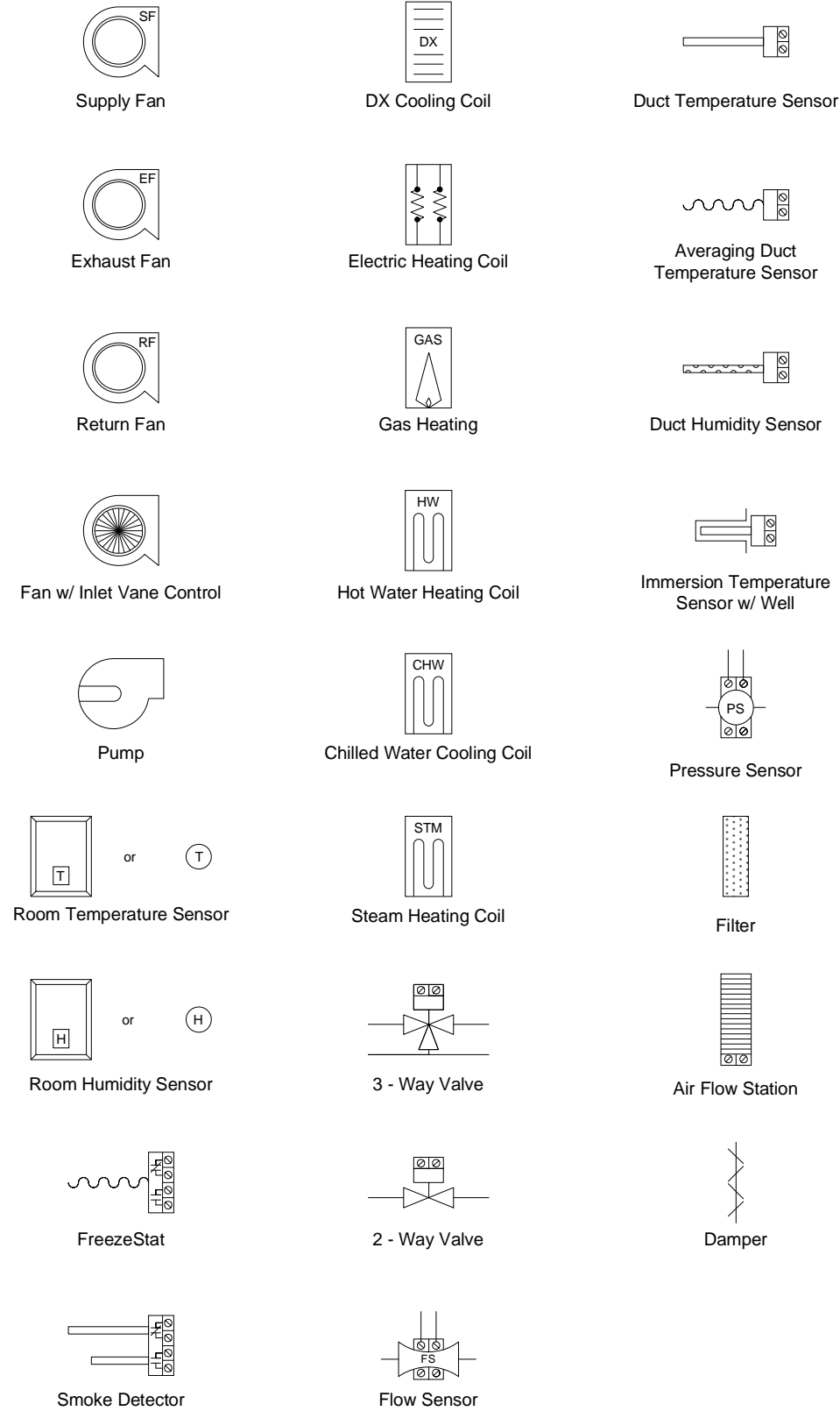
**AUTOMATEDLOGIC**<sup>®</sup>  
CORPORATION

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Windsor School District Palmer Middle School			
Windsor, New York			
 <b>AIR TEMP HEATING &amp; AIR CONDITIONING, INC.</b> A LINC SERVICE ® CONTRACTOR			
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# Symbol Legend

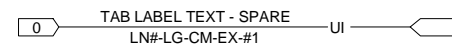


## Common Abbreviations:

AC - Air Conditioning	EVAP - Evaporator	SA - Supply Air
ACU - Air Conditioning Unit	F - Fahrenheit	SF - Supply Fan
AHU - Air Handling Unit	FCU - Fan Coil Unit	SP - Static Pressure
AI - Analog Input	HOA - Hand / Off / Auto	TEMP - Temperature
AO - Analog Output	HP - Heat Pump	UH - Unit Heater
AUTO - Automatic	HRU - Heat Recovery Unit	UV - Unit Ventilator
AUX - Auxiliary	HTEX - Heat Exchanger	VAV - Variable Air Volume
C - Common	HW - Hot Water	VVTU - Variable Volume Terminal Unit
CHW - Chilled Water	HWP - Hot Water Pump	W/ - with
CHWP - Chilled Water Pump	HWR - Hot Water Return	W/O - without
CHWR - Chilled Water Return	HWS - Hot Water Supply	WSHP - Water-Source Heat Pump
CHWS - Chilled Water Supply	MAX - Maximum	
COND - Condenser	MIN - Minimum	
CW - Condenser Water	MISC - Miscellaneous	
CWP - Condenser Water Pump	NC - Normally Closed	
CWR - Condenser Water Return	NO - Normally Open	
CWS - Condenser Water Supply	OA - Outdoor Air	
DA - Discharge Air	PIU - Powered Induction Unit	
DI - Digital Input	RA - Return Air	
DO - Digital Output	RF - Return Fan	
EA - Exhaust Air	RH - Relative Humidity	
EF - Exhaust Fan	RTU - Roof-top Unit	

## General Notes:

1. All control modules are drawn using standard ALC module representations.
2. Electrical points are identified by a tagged method (LN# - LG - CM - EX - Z0):

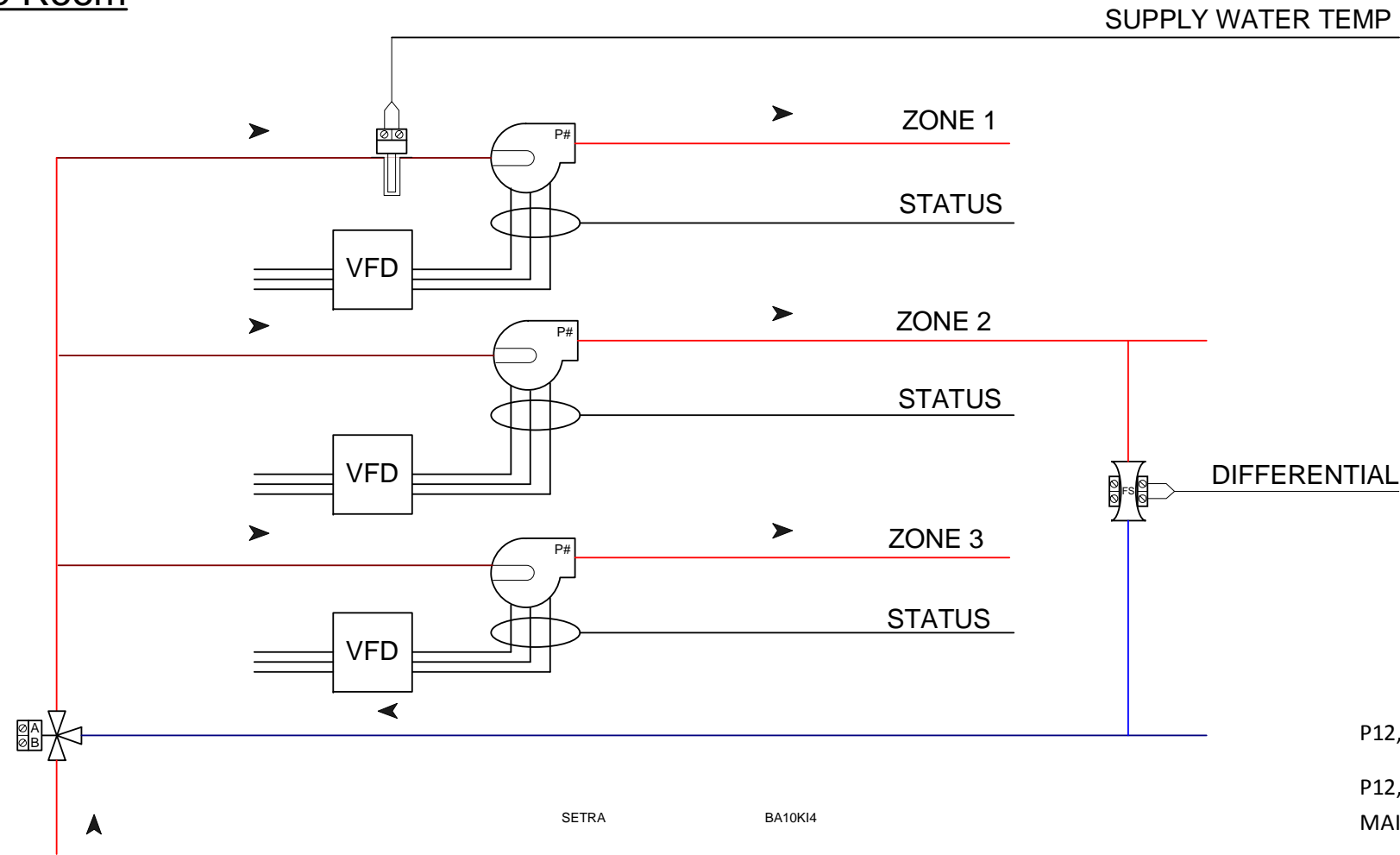


- LN# - The line number (optional).
- LG - The gateway number (optional).
- CM - The control module address.
- EX - The expander module number.
- #1 - The channel number.

These tags include wiring for all AI's, DI's, AO's and DO's. Points using pneumatic tubing follow the same convention.

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# Pump Room

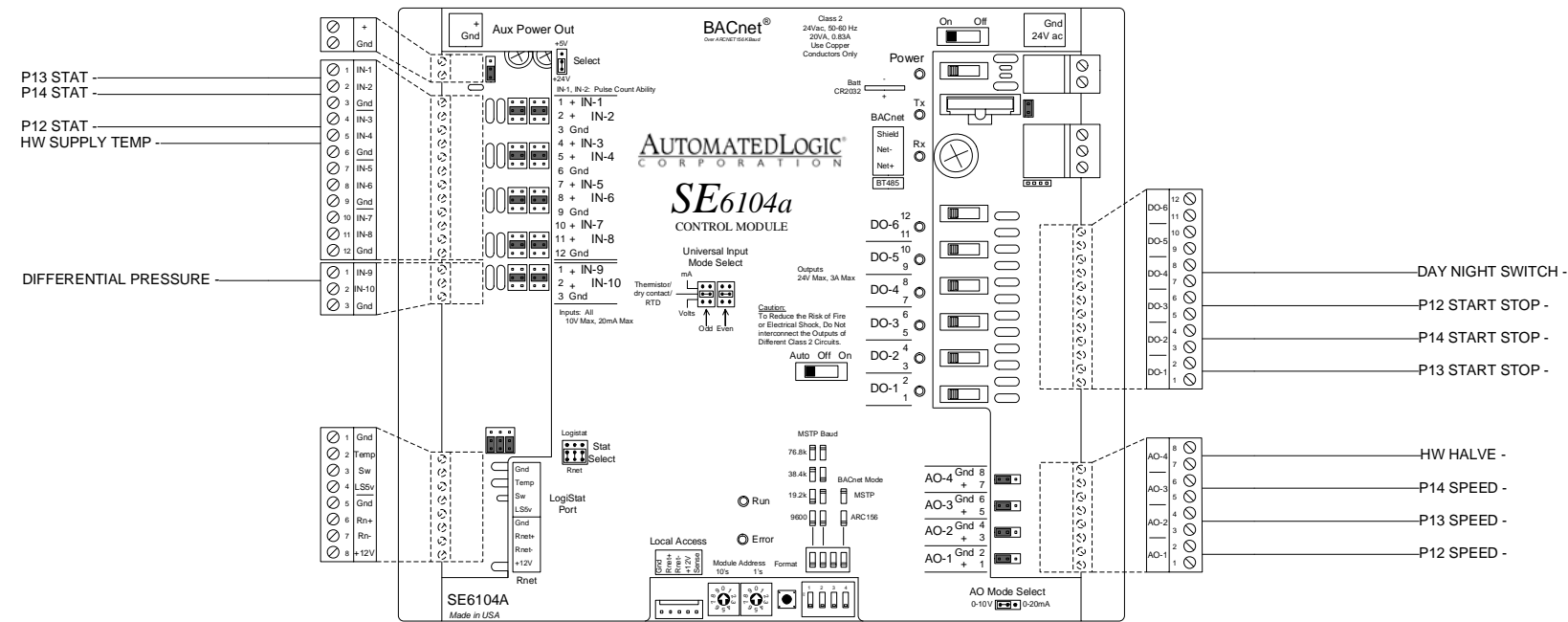


Bill of Materials				
DID	DESCRIPTION	MANUFACTURER	PART NUMBER	QTY
BA10K14	TEMP SENSOR	BA10K14	BA10K14	1 ea
SE6104a	SE6104A	AUTOMATED LOGIC	SE6104A	1 ea
SETRA	DIFF PRESSURE	SETRA	SETRA	1 ea

P12, P13, P14 TO BE STARTED ON AN OUTSIDE AIR TEMPERATURE ENABLE, (ADJUSTABLE).

P12, P13, P14, OPERATE ON VARIABLE SPEED DRIVES THAT ARE RAMPED UP OR DOWN BASED ON A MAIN DIFFERENTIAL PRESSURE, TO MAINTAIN A 10 PSIG DIFFERENTIAL, (ADJUSTABLE).

THE THREE WAY HOT WATER VALVE WILL MAINTAIN A SUPPLY WATER TEMPERATURE TO EACH ZONE BASED ON A HOT WATER RESET SETPOINT BASED ON OUTDOOR TEMPERATURE (ADJUSTABLE).



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Pump Room

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

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# Summary Bill of Materials

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# Valve Schedule



Application	Pos	Re-Order #	Qty	Tag	Datasheet	Voltage	Valve Pattern	Pipe Size	Flow [GPM]	?P	Req. Cv	Body Size	Valve Cv	Actual ?P	Close Off Pressure
Water	1		1		G7_NVG_MFT.pdf	24 VAC/VDC	3W Mix	2.5	80	30	65	2-1/2"	68	30	61

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