

# Dairy One

Binghamton , New York

Application Engineering by Randy Langille

Engineer/Architect      Airtemp

Mechanical Contractor      Airtemp

Job Number      P8131

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

## Table of Contents

- 1: Titlepage
- 2: Table of Contents
- 3: Symbol Legend
- 4: Riser
- 5: Summary Bill of Materials
- 6: Boilers
- 7: Boilers Control
- 8: AHU 1
- 9: AHU Control
- 10: Condensing Unit Control

Dairy One Binghamton , New York			
Table of Contents			
REV: 1	Submittal	6/10/2010	JOB NO: P8131
<b>AUTOMATEDLOGIC</b> CORPORATION			CHECK BY: RSL
			DSCODE: 07112.00
			2 of 10

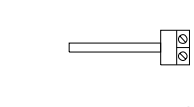
# Symbol Legend



Supply Fan



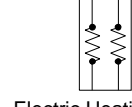
DX Cooling Coil



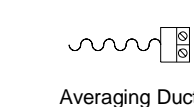
Duct Temperature Sensor



Exhaust Fan



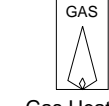
Electric Heating Coil



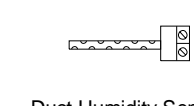
Averaging Duct Temperature Sensor



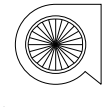
Return Fan



Gas Heating



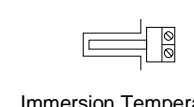
Duct Humidity Sensor



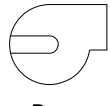
Fan w/ Inlet Vane Control



Hot Water Heating Coil



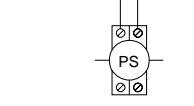
Immersion Temperature Sensor w/ Well



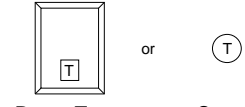
Pump



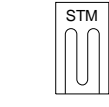
Chilled Water Cooling Coil



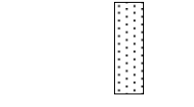
Pressure Sensor



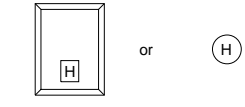
Room Temperature Sensor



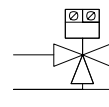
Steam Heating Coil



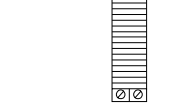
Filter



Room Humidity Sensor



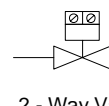
3 - Way Valve



Air Flow Station



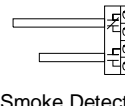
FreezeStat



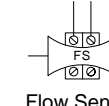
2 - Way Valve



Damper



Smoke Detector



Flow Sensor

## Common Abbreviations:

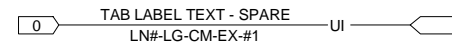
AC - Air Conditioning  
 ACU - Air Conditioning Unit  
 AHU - Air Handling Unit  
 AI - Analog Input  
 AO - Analog Output  
 AUTO - Automatic  
 AUX - Auxiliary  
 C - Common  
 CHW - Chilled Water  
 CHWP - Chilled Water Pump  
 CHWR - Chilled Water Return  
 CHWS - Chilled Water Supply  
 COND - Condenser  
 CW - Condenser Water  
 CWP - Condenser Water Pump  
 CWR - Condenser Water Return  
 CWS - Condenser Water Supply  
 DA - Discharge Air  
 DI - Digital Input  
 DO - Digital Output  
 EA - Exhaust Air  
 EF - Exhaust Fan

EVAP - Evaporator  
 F - Fahrenheit  
 FCU - Fan Coil Unit  
 HOA - Hand / Off / Auto  
 HP - Heat Pump  
 HRU - Heat Recovery Unit  
 HTEX - Heat Exchanger  
 HW - Hot Water  
 HWP - Hot Water Pump  
 HWR - Hot Water Return  
 HWS - Hot Water Supply  
 MAX - Maximum  
 MIN - Minimum  
 MISC - Miscellaneous  
 NC - Normally Closed  
 NO - Normally Open  
 OA - Outdoor Air  
 PIU - Powered Induction Unit  
 RA - Return Air  
 RF - Return Fan  
 RH - Relative Humidity  
 RTU - Roof-top Unit

SA - Supply Air  
 SF - Supply Fan  
 SP - Static Pressure  
 TEMP - Temperature  
 UH - Unit Heater  
 UV - Unit Ventilator  
 VAV - Variable Air Volume  
 VVTU - Variable Volume Terminal Unit  
 W/ - with  
 W/O - without  
 WSHP - Water-Source Heat Pump

## General Notes:

- All control modules are drawn using standard ALC module representations.
- 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.

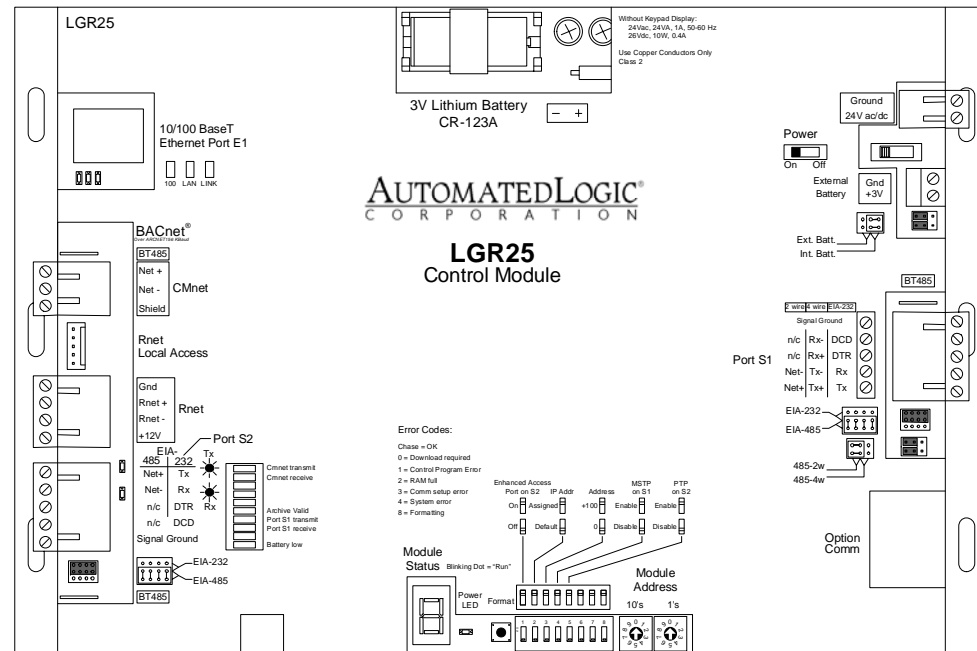
These tags include wiring for all AI's, DI's, AO's and DO's. Points using pneumatic tubing follow the same convention.

Dairy One Binghamton, New York			
Symbol Legend			
REV: 1	Submittal	6/10/2010	JOB NO: P8131
			CHECK BY: RSL
			DSCODE: 07112.00
			3 of 10

# Riser

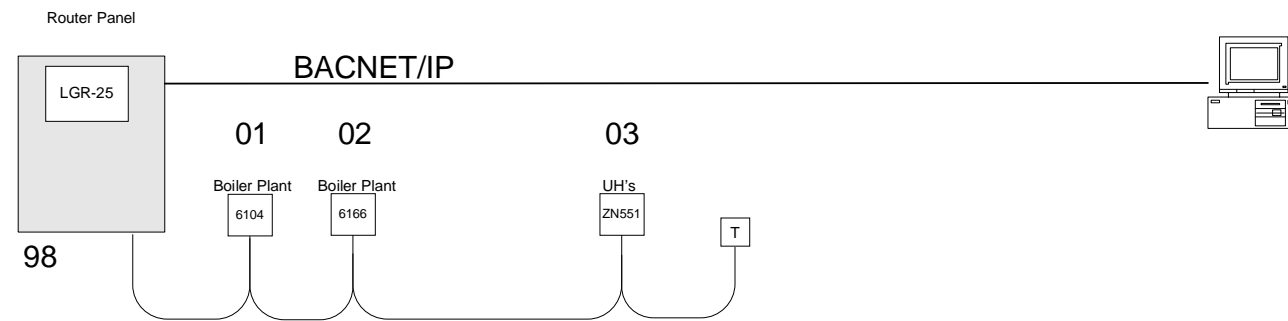
## Bill of Materials

DID	DESCRIPTION	MANUFACTURER	PART NUMBER	QTY
LGR25	LGR25	AUTOMATED LOGIC	LGR25	1 ea
diag				1 ea
prot				1 ea



DIAG

PROT



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Riser

REV: 1      Submittal      6/10/2010      JOB NO: P8131

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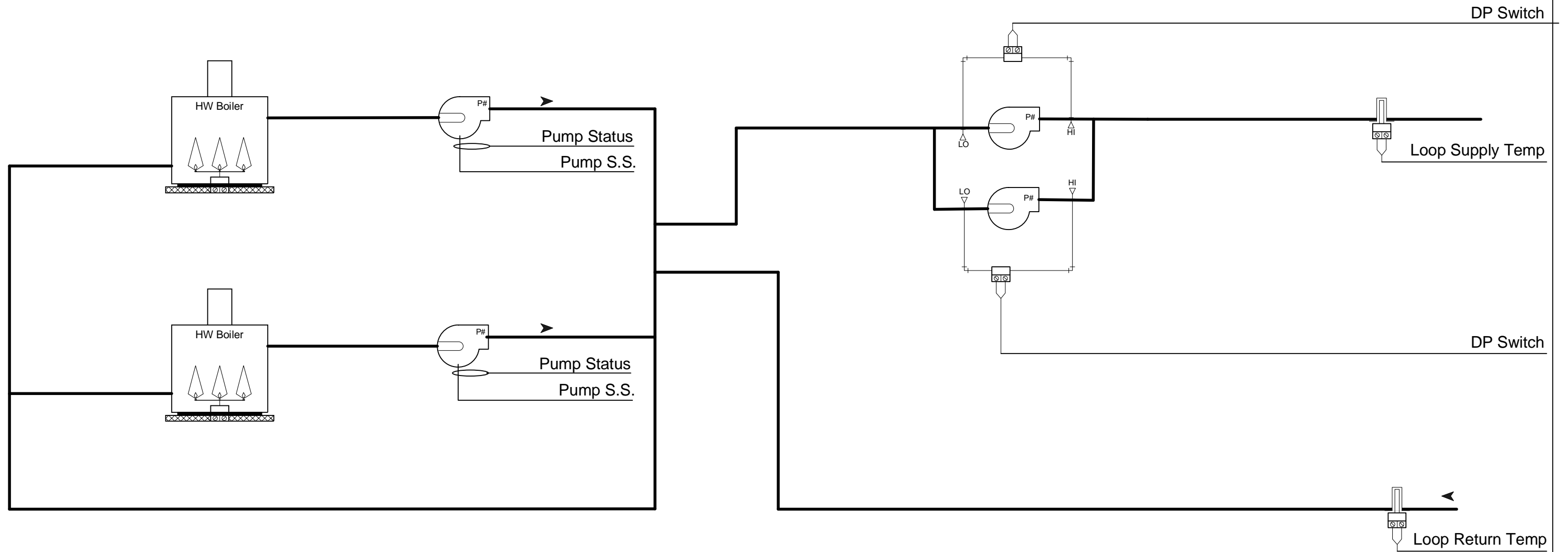
4 of 10

# Summary Bill of Materials

Summary Bill of Materials				
DID	DESCRIPTION	MANUFACTURER	PART NUMBER	QTY
BA10K				1 ea
Dpsw				2 ea
FRZ	FRZ	FRZ	FRZ	1 ea
LFRES24				1 ea
LGR25	LGR25	AUTOMATED LOGIC	LGR25	1 ea
S6104	S6104	AUTOMATED LOGIC	S6104	1 ea
SE6166	SE6166	AUTOMATED LOGIC	SE6166	1 ea
TR-AG	TRANSFORMER, 120/24VAC 150VA W/CCT BREAKER	CORE COMPONENTS	LE-124	15 ea
ZN551	ZN551	AUTOMATED LOGIC	ZN551	1 ea
af24us				2 ea
ba10k12d	BA10K12D	BA10K12D	BA10K12D	3 ea
bastrp				2 ea
diag				1 ea
prot				1 ea
ribu1c	PILOT RELAY 24 VAC DPDT W/ LED	FUNCTIONAL	RIBU1C	14 ea
ribxf	CURRENT SWITCH .5-200 AMP SOLID CORE GO/NO GO	FUNCTIONAL	RIBXKF	8 ea
tdref				2 ea
trnsdc				2 ea
wallsnsr	WALLSNSR	WALLSNSR	WALLSNSR	2 ea

<b>Dairy One</b> Binghamton , New York			
Summary Bill of Materials			
REV: 1	Submittal	6/10/2010	JOB NO: P8131
			CHECK BY: RSL
			DSCODE: 07112.00
			5 of 10

# Boilers

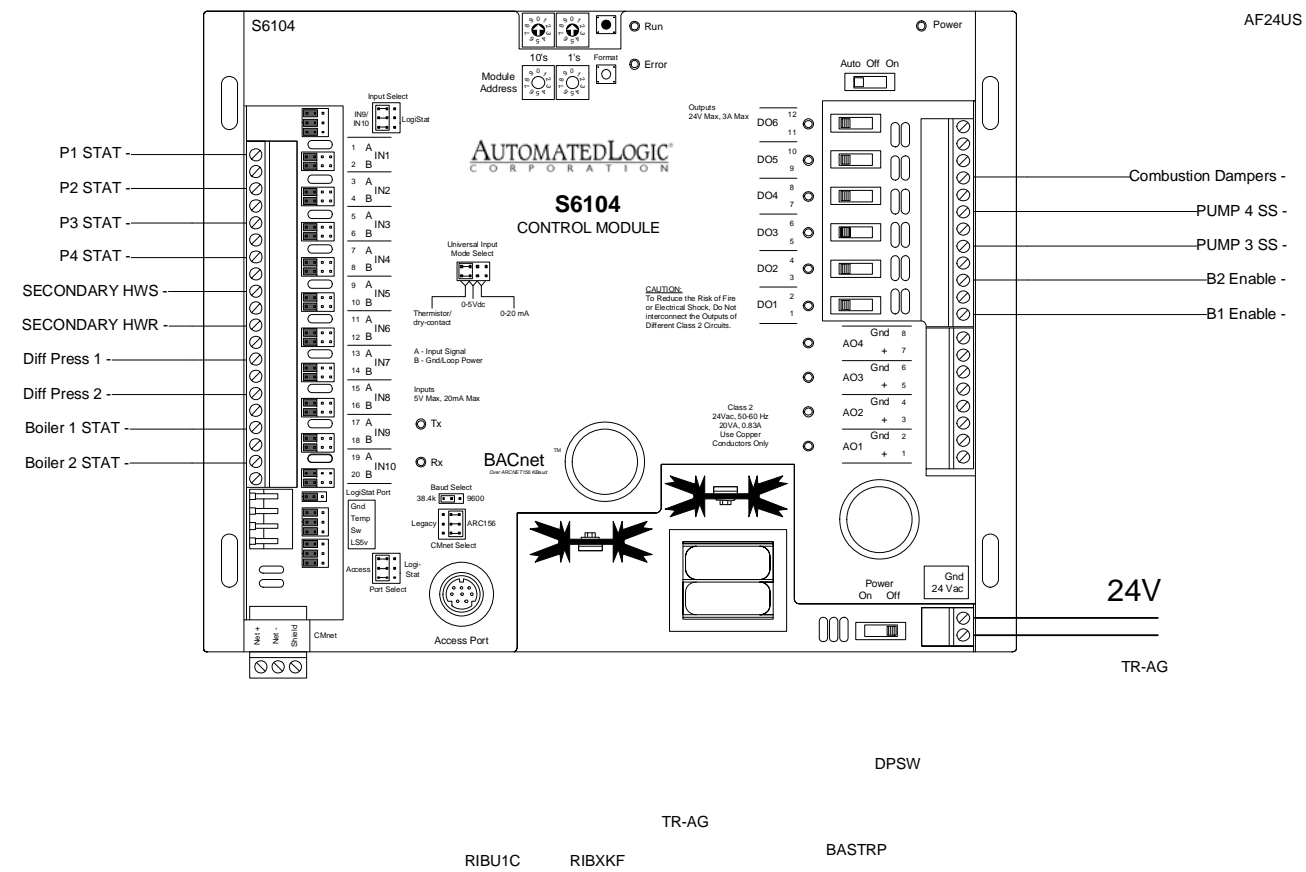


Dairy One Binghamton , New York			
Boilers			
REV: 1	Submittal	6/10/2010	JOB NO: P8131
<b>AUTOMATEDLOGIC</b> CORPORATION			CHECK BY: RSL
			DSCODE: 07112.00
			6 of 10

# Boilers Control

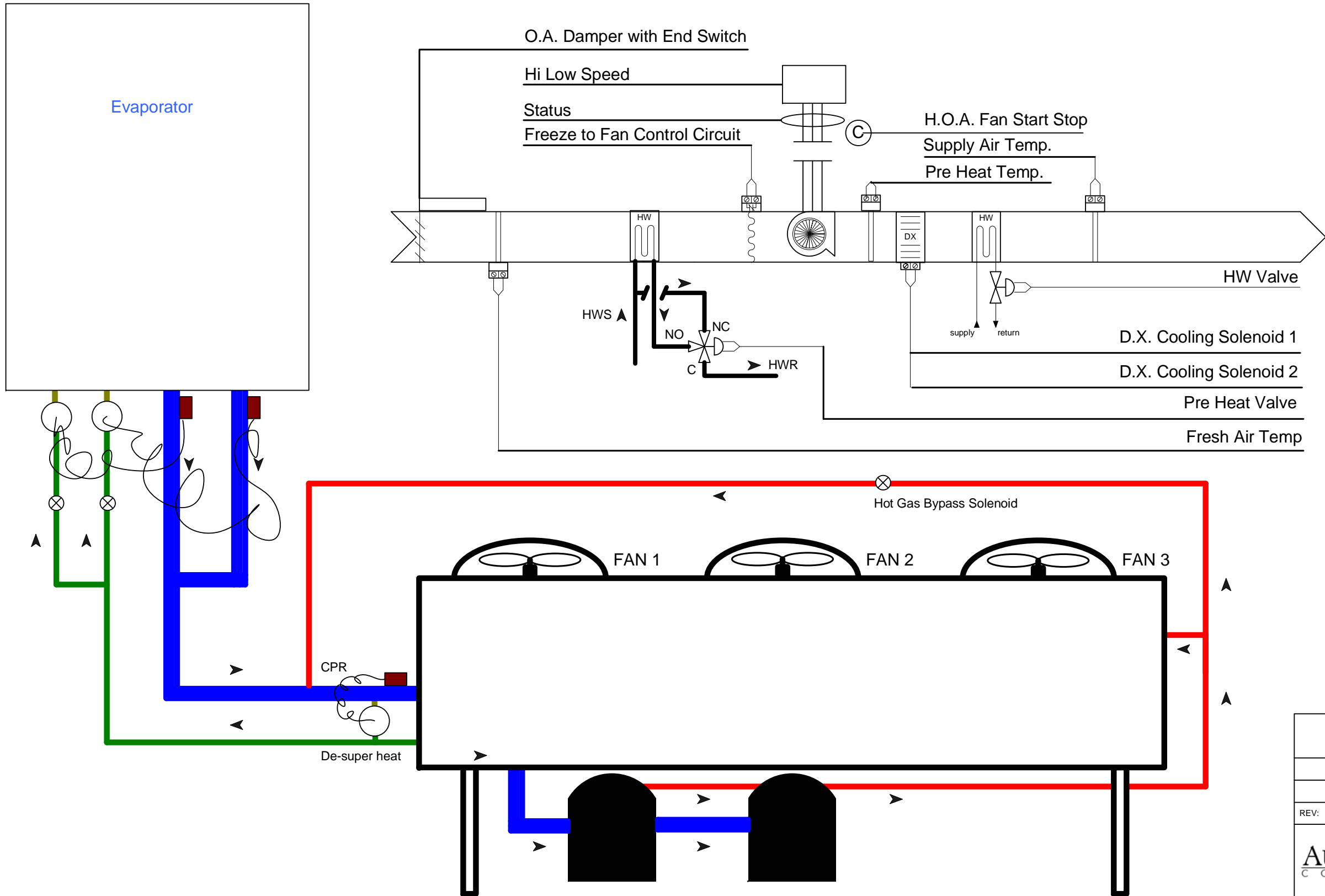
## Bill of Materials

DID	DESCRIPTION	MANUFACTURER	PART NUMBER	QTY
Dpsw				2 ea
S6104	S6104	AUTOMATED LOGIC	S6104	1 ea
TR-AG	TRANSFORMER, 120/24VAC 150VA W/CCT BREAKER	CORE COMPONENTS	LE-124	3 ea
af24us				2 ea
bastrp				2 ea
ribu1c	PILOT RELAY 24 VAC DPDT W/ LED	FUNCTIONAL	RIBU1C	4 ea
ribxkf	CURRENT SWITCH .5-200 AMP SOLID CORE GO/NO GO	FUNCTIONAL	RIBXKF	4 ea



Dairy One Binghamton, New York			
Boilers Control			
REV: 1	Submittal	6/10/2010	JOB NO: P8131
			CHECK BY: RSL
			DSCODE: 07112.00
			7 of 10

# AHU 1



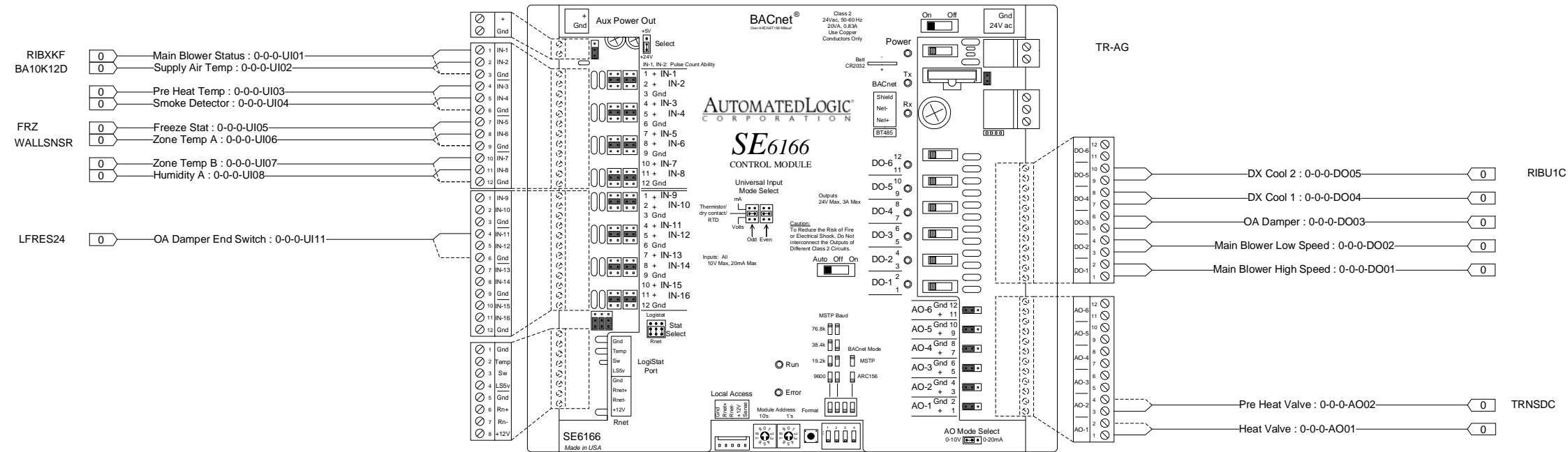
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AHU 1			
REV: 1	Submittal	6/10/2010	JOB NO: P8131
			CHECK BY: RSL
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8 of 10			



# AHU Control

## Bill of Materials

DID	DESCRIPTION	MANUFACTURER	PART NUMBER	QTY
FRZ	FRZ	FRZ	FRZ	1 ea
LFRES24				1 ea
SE6166	SE6166	AUTOMATED LOGIC	SE6166	1 ea
TR-AG	TRANSFORMER, 120/24VAC 150VA W/CCT BREAKER	CORE COMPONENTS	LE-124	1 ea
ba10k12d	BA10K12D		BA10K12D	3 ea
ribu1c	PILOT RELAY 24 VAC DPDT W/ LED	FUNCTIONAL	RIBU1C	5 ea
ribxkf	CURRENT SWITCH .5-200 AMP SOLID CORE GO/NO GO	FUNCTIONAL	RIBXKF	2 ea
trnsdc				2 ea
wallsnsr	WALLSNSR	WALLSNSR	WALLSNSR	2 ea



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### AHU Control

REV: 1    Submittal    6/10/2010    JOB NO: P8131

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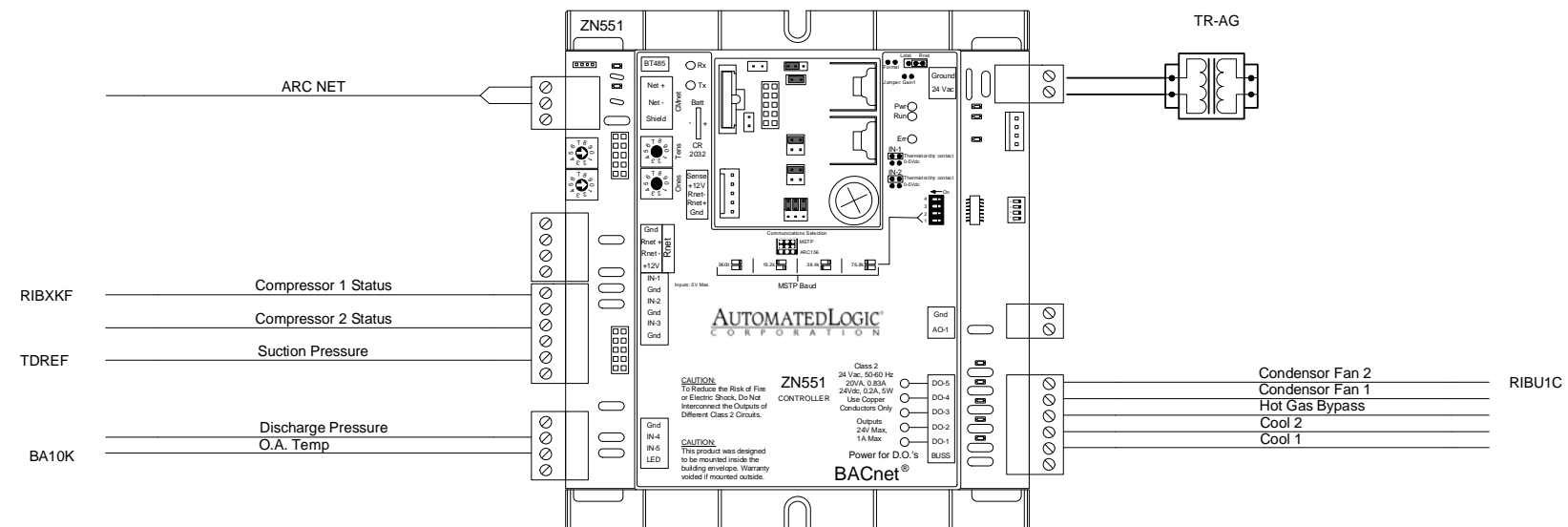
CHECK BY: RSL

DSCODE: 07112.00

# Condensing Unit Control

## Bill of Materials

DID	DESCRIPTION	MANUFACTURER	PART NUMBER	QTY
BA10K				1 ea
TR-AG	TRANSFORMER, 120/24VAC 150VA W/CCT BREAKER	CORE COMPONENTS	LE-124	11 ea
ZN551	ZN551	AUTOMATED LOGIC	ZN551	1 ea
ribu1c	PILOT RELAY 24 VAC DPDT W/ LED	FUNCTIONAL	RIBU1C	5 ea
ribxkf	CURRENT SWITCH .5-200 AMP SOLID CORE GO/NO GO	FUNCTIONAL	RIBXKF	2 ea
tdref				2 ea



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Condensing Unit Control

REV: 1      Submittal      6/10/2010      JOB NO: P8131

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