



# ASU ABI Building Controls Modifications Phase-1

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Project number: L12-0828  
Application Engineer: VWI  
Drawn by: VWI  
Checked by: VWI

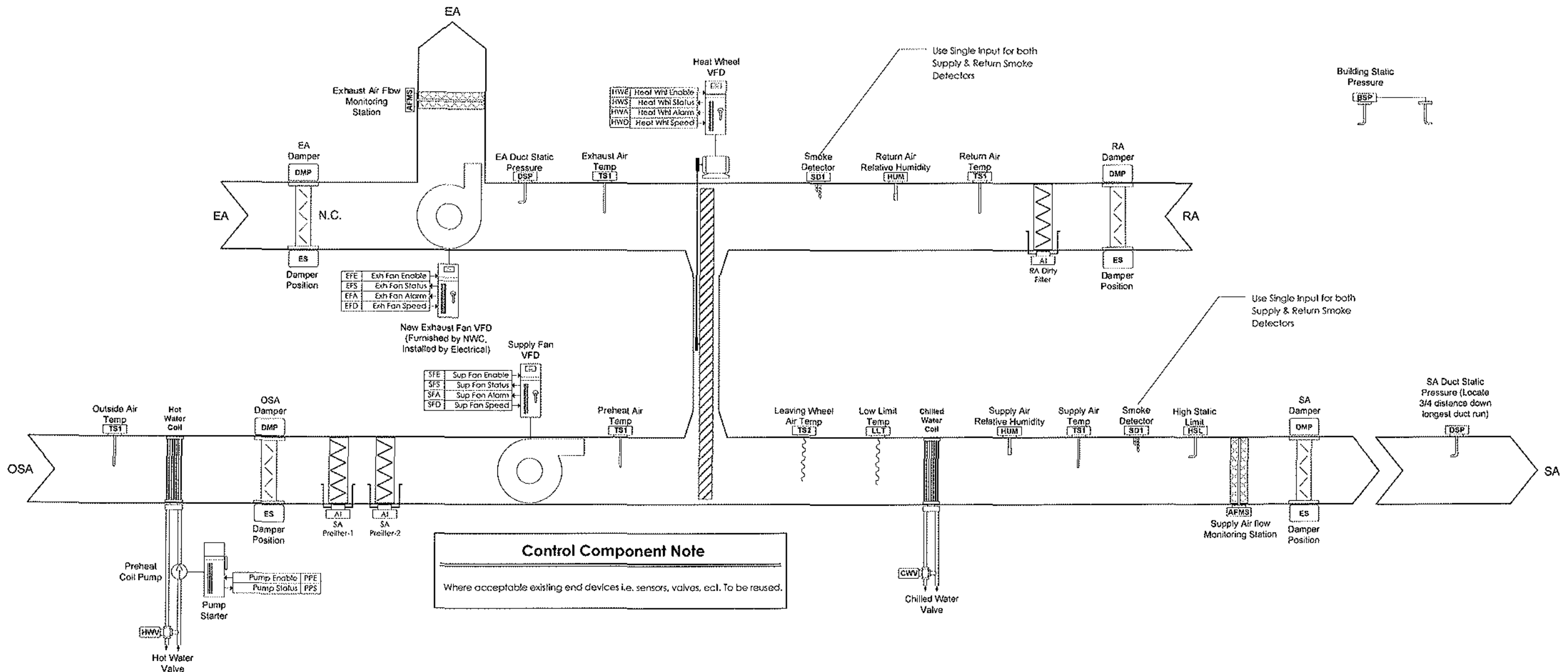
Project name: ASU ABI Building Controls Modifications Phase-1  
Architect: N/A  
Engineers: Sebesta Blomberg  
Mechanical: RGB  
Phase: O & M Manual  
Creation Date: 4/13/2012  
Revision Date: 8/13/2012

**Northwest Controls**  
7634 Northshore Place  
North Little Rock, AR 72118  
Ph: (501) 280-0904 Fax: (501) 280-9200

# ERAHU Control Diagram

Typical of 3

TAG	QTY.	PART NO.	MANUFACTURER	DESCRIPTION
VFD	3	ACH550-VCR-072A-4+F267	ABB	50hp variable frequency drive, 460vac
TS1	15	ST-D3	Kele	Duct temp sensor
TS2	3	ST-FZ3-25	Kele	Duct averaging temp sensor
LLT	3	A70HA-1	Kele	Low limit switch
HUM	6	HD20K	Kele	Duct humidity sensor
HSL	3	AFS-460-137	Kele	High static limit switch
DSP	6	A-300	Kele	Duct static pressure switch
FLT	9	A-300	Kele	Dirty filter transmitter
RL1	12	RIBUTC	Kele	Relay
DC1	12	SCS1150A	Kele	Current switch
BSP	1	A-300	Kele	Building static pressure switch
AFMS	6	Existing	To be Field Verified	Air flow monitoring station
DMP	12	Existing	To be Field Verified	Motorized damper with endswitch
CWV	3	Existing	To be Field Verified	Chilled water valve
HWV	3	Existing	To be Field Verified	Hot water valve
SD1	6	Existing	To be Field Verified	Smoke detector



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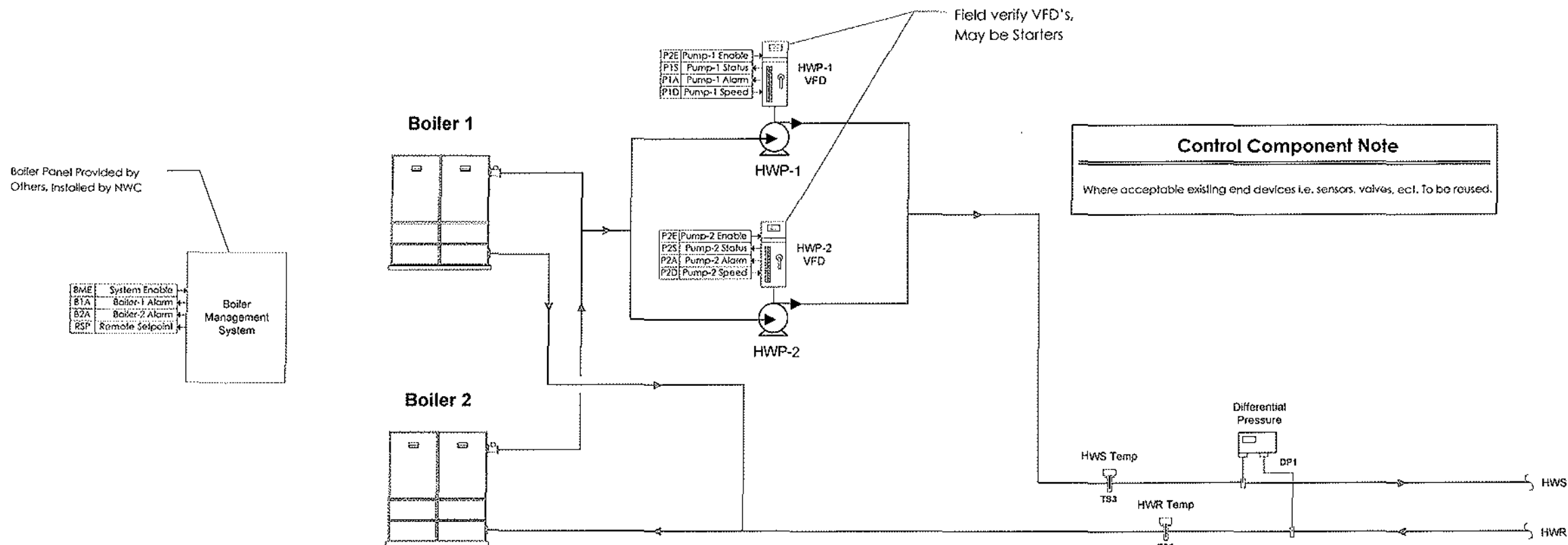
Architect: N/A  
 Engineers: Sebasta Blomberg  
 Mechanical: RGB

**Northwest Controls**  
 7531 Northlake Place  
 North Little Rock, AR 72118  
 Ph: (501) 280-0404 Fax: (501) 280-9200

# Hot Water System Control Diagram

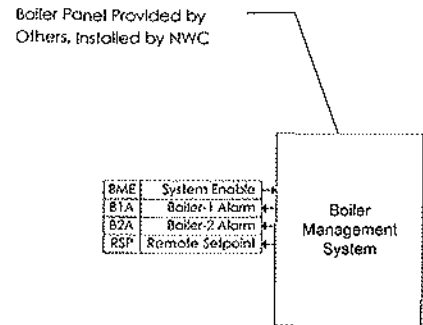
Typical of 1

TAG	QTY.	PART NO.	MANUFACTURER	DESCRIPTION
TS3	2	ST-W3	Kele	Immersion temp sensor
DP1	1	PTX-1-E-G-07	Kele	Differential pressure transmitter
RL1	3	RIBU1C	Kele	Relay
DC1	3	SCS1150A	Kele	Current switch



Field verify VFD's,  
May be Starters

**Control Component Note**  
Where acceptable existing end devices i.e. sensors, valves, ect. To be reused.



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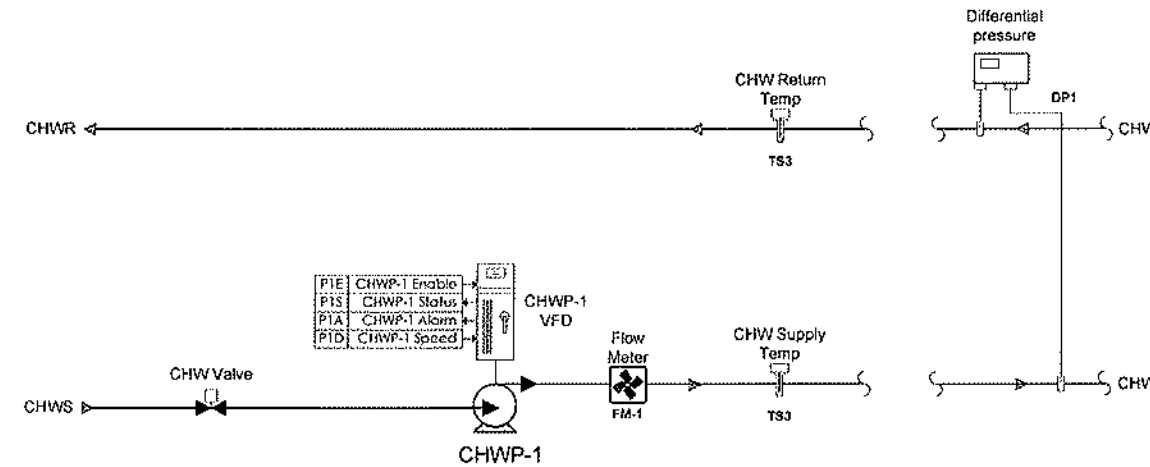
Architect: N/A  
Engineers: Sebastia Blomberg  
Mechanical: RGB

**Northwest Controls**  
7631 Northshore Place  
North Little Rock, AR 72118  
Ph: (503) 280-9404 Fax: (503) 280-9200

# Chilled Water Loop Control Diagram

Typical of 1

TAG	QTY.	PART NO.	MANUFACTURER	DESCRIPTION
TS3	2	ST-W3	Kele	Immersion temp sensor
DP1	1	PTX-1-E-G-07	Kele	Differential pressure transmitter
RL1	1	RIBU1C	Kele	Relay
DC1	1	SCS1150A	Kele	Current switch
FM-1	1	FS251	ITT (Grainger)	Paddle switch for flow



### Control Component Note

Where acceptable existing end devices i.e. sensors, valves, ect. To be reused.

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 Application Engineer: VWI  
 Drawn by: VWI  
 Checked by: VWI

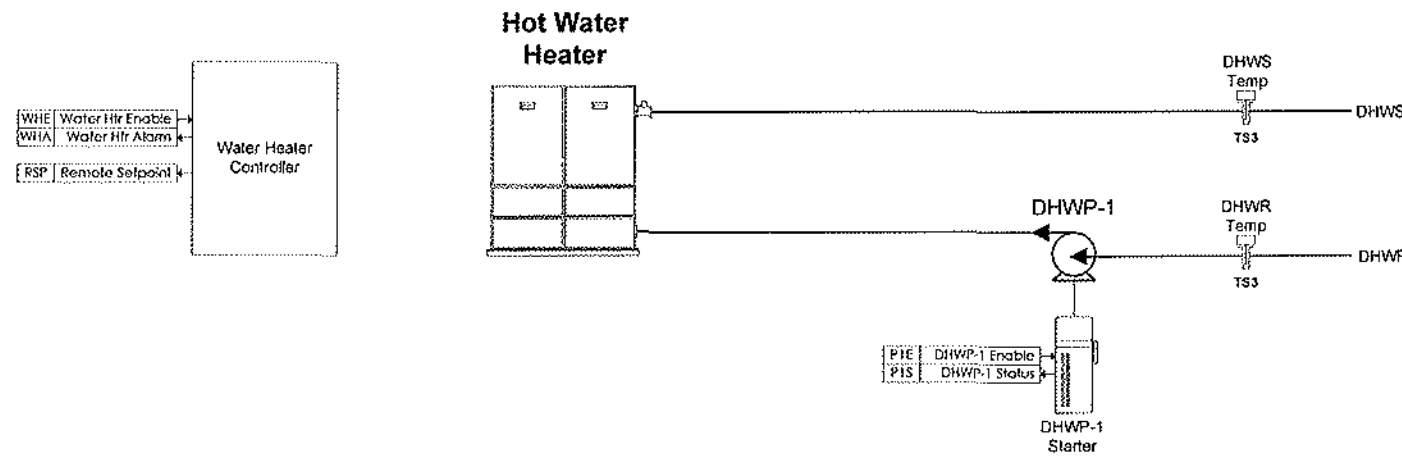
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 Architect: N/A  
 Engineers: Sebesta Blomberg  
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 North Little Rock, AR 72118  
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# Domestic Hot Water Control Diagram

Typical of 1

TAG	QTY.	PART NO.	MANUFACTURER	DESCRIPTION
TS3	2	ST-W3	Kele	Immersion temp sensor
RL1	2	RIBU1C	Kele	Relay
DC1	1	SCS1150A	Kele	Current switch



**Control Component Note**

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Where acceptable existing end devices i.e. sensors, valves, eci, to be reused.

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 Application Engineer: VWI  
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 Checked by: VWI

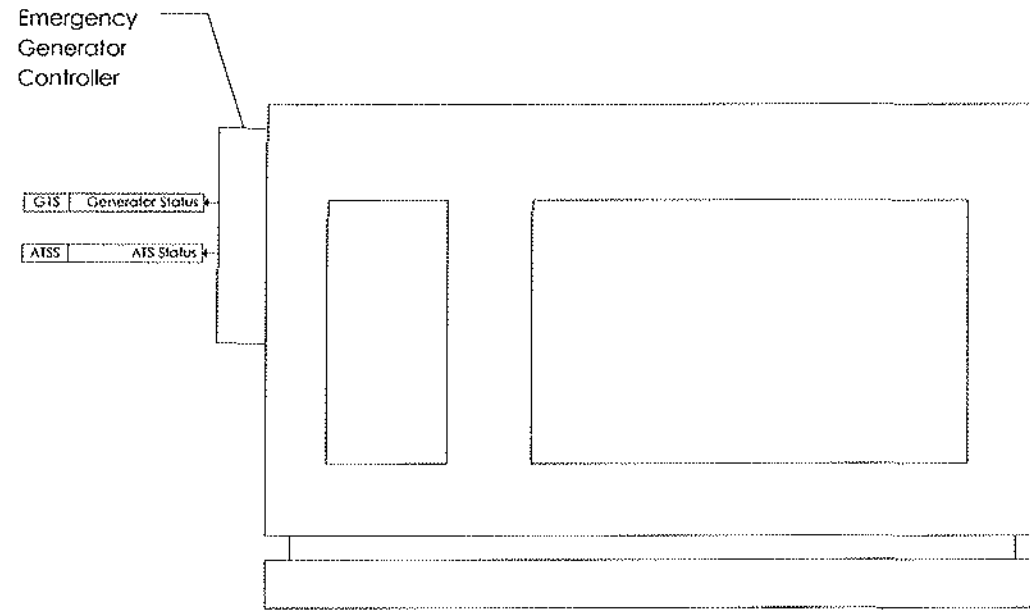
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Architect: N/A  
 Engineers: Sebestia Blomberg  
 Mechanical: RGB

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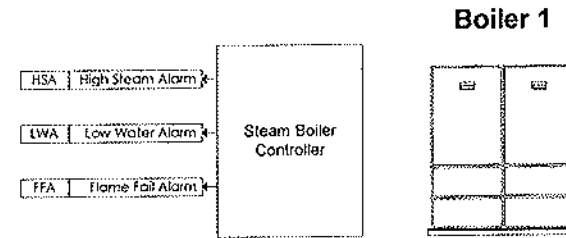
# Generator, Steam Boiler and Electric Meter Control Diagram

Typical of 1

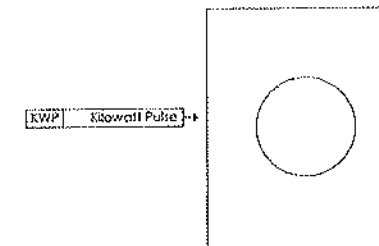


Emergency Generator

**Control Component Note**  
 Where acceptable existing end devices i.e. sensors, valves, ect. To be reused.



Steam Boiler



Electric Meter

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H12 0028 a & m.rvt