

# ENGINEERED ENVIRONMENTS

P.O. BOX 1474 ♦ MANCHESTER, TN. 37349-4474

PHONE (931) 728-6363 ♦ FAX (931) 728-0780

## TEST, ADJUST, AND BALANCE REPORT

**DATE:**

January 18, 2010

**PROJECT:**

Christmas Pump Station No. A-2  
103 North Roan Street  
Harriman, TN. 37748

**GENERAL CONTRACTOR:**

Southern Constructors, Inc.  
1150 Maryville Pike  
Knoxville, TN. 37920

**ARCHITECT:**

GRW, Inc.  
Knoxville, TN.

**DESIGN ENGINEER:**

WWR Engineers, Inc.  
5417 Ball Camp Pike  
Knoxville, TN. 37921

**HVAC CONTRACTOR :**

CHC Mechanical Contractors  
347 East Stevens Street  
Cookeville, TN. 38501



TAB FIRM

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*AN INDEPENDENT TESTING & BALANCING COMPANY*

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## Certificate of Balance

**PROJECT:** Christmas Pump Station No. A-2

**ADDRESS:** 103 North Roan Street      Harriman, TN. 37748

The data presented in this report is an exact record of system performance and was obtained following Engineered Environments Standard Procedures. Any variances from design quantities which exceed Engineered Environments tolerances are noted throughout the report.

The air distribution systems have been tested & balanced and final adjustments have been made by following "Procedural Standards for Testing, Adjusting, & Balancing of Environmental Systems" and the project specifications.

**T.A.B. FIRM:** Engineered Environments

**Certificate of Balance issued by:** Billy "Cody Rich" Teal

**Date:** Jan. 13, 2010

The hydronic distribution systems have been tested & balanced and final adjustments have been made by following "Procedural Standards for Testing, Adjusting, & Balancing of Environmental Systems" and the project specifications.

**T.A.B. FIRM:** Engineered Environments

**Certificate of Balance issued by:** Billy "Cody Rich" Teal

**Date:** Jan. 13, 2010

### Certificate of Balance issued by:

**T.A.B. FIRM:** Engineered Environments

**T.A.B. Supervisor:** Billy "Cody Rich" Teal

**Date:** Jan. 13, 2010

**SIGNATURE** \_\_\_\_\_



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## SYMBOL REPORT

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AHU	Air Handling Unit	LAB	Laboratory
AK	Fixed Sheave with A Pitch Groove	LSD	Linear Slot Diffuser
AMPS	Amperes	LVG	Leaving
AOS	A.O. Smith	MAU	Make-up Air Unit
ASSOC	Associates	MECH	Mechanical
B & G	Bell & Gossett	MIN / MAX	Minimum/Maximum
BC	Back Curved	N / A	Not Applicable or Not Available
BI	Back Inclined	NAT	Natural
BK	Fixed Sheave with B Pitch Groove	OPER	Operating
CD	Ceiling Diffuser	RAG	Return Air Grill
CFM	Cubic Feet per Minute	RAR	Return Air Register
DD	Direct Drive	RB	Radial Blade
DIAM	Diameter	REG	Register
DIF	Diffuser	RET	Return
DISP	Disposable	RM	Room
DIST	Distance	RPM	Rotation Per Minute
DX	Gas Heated	RR	Rest Room
EF	Exhaust Fan	RT	Radial Tip
EG	Exhaust Grill	RTU	Roof Top Unit
EMER	Emerson	SAD	Supply Air Diffuser
ENT	Entering	SAR	Supply Air Register
ER	Exhaust Register	SER	Service
ERV	Energy Recovery Ventilator	SHV	Sheave
EXT	External	SWR	Side Wall Register
FAU	Fresh Air Unit	SYS	System
FC	Forward Curve	TA	Throw Away
FL	Floor	VENT	Ventilator
FPM	Feet Per Minute	VERT	Vertical
GE	General Electric	VOLT	Voltage
GR	Grill	VP	Variable Pitch Motor Sheave
HORIZ	Horizontal	WASH	Washable
HP	Horse Power	WC	Water Column
INC	Incorporate	WS	Water Source



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## FAN TEST REPORT

<b>PROJECT: Christmas Pump Station No. A-2</b>																							
Unit				ERV-01				Unit				ERV-01											
System				Supply				System				Exhaust											
Location				Ceiling				Location				Ceiling											
Service				Building				Service				Building											
<b>UNIT DATA</b>						<b>UNIT DATA</b>																	
Make				Greenheck				Make				Greenheck											
Model				ERV-251H-20				Model				ERV-251H-20											
Serial				11874628				Serial				11874628											
Shv. Make		Shv. Bore		DD		DD		Shv. Make		Shv. Bore		DD		DD									
Shv. Diam.		Center Dist.		DD		DD		Shv. Diam.		Center Dist.		DD		DD									
Belt Make				DD				Belt Make				DD											
# Belts		Belt Size		DD		DD		# Belts		Belt Size		DD		DD									
<b>MOTOR DATA</b>						<b>MOTOR DATA</b>																	
Make				Marathon				Make				Marathon											
Frame		Power		48Y		.50 hp		Frame		Power		48Y		.50 hp									
Ser. Factor		RPM		1.0		1725		Ser. Factor		RPM		1.0		1725									
Nameplate Voltage				120				Nameplate Voltage				120											
Nameplate Amperes				9.7				Nameplate Amperes				9.7											
Actual Voltage				122				Actual Voltage				121											
Actual Amperes				7.8				Actual Amperes				8.3											
Phase		Hertz		1		60		Phase		Hertz		1		60									
Shv. Make		Shv. Bore		DD		DD		Shv. Make		Shv. Bore		DD		DD									
Shv. Diam.		Oper. Diam.		DD		DD		Shv. Diam.		Oper. Diam.		DD		DD									
<b>TEST DATA</b>				<b>DESIGN</b>		<b>ACTUAL</b>		<b>TEST DATA</b>				<b>DESIGN</b>		<b>ACTUAL</b>									
Airflow				850		875		Airflow				850		842									
Ent. Sp.		Lvg. Sp.		N/A		N/A		-.36		.03		Ent. Sp.		Lvg. Sp.		N/A		N/A		-.41		.03	
EXT. Static Pressure				.50		.39		EXT. Static Pressure				.50		.44									
Fan RPM				DD		DD		Fan RPM				DD		DD									
Remarks:						Remarks:																	
Readings By: Cody Rich						Readings By: Cody Rich																	
Test Date: 01/13/2010						Test Date: 01/13/2010						Page: 01											

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## TABLE OF CONTENTS

**PROJECT: Christmas Pump Station No. A-2**

Fan Test Report ERV-01 Supply.....	01
Fan Test Report ERV-01 Exhaust.....	01