

**St. Paul Elementary & High School  
RETRO-COMMISSIONING**

**EXISTING BUILDING**

Owner:  
St. Paul School District  
20449 Main Street NE  
St. Paul, OR 97137  
Charles Geis (503) 633-2541

*Project Start:* November 1988  
*Project Finish:* January 2000  
*Facility Type:* Educational  
*Building Age:* 1952 (ES)  
1963 (HS)

Client:  
Oregon Department of Energy  
625 Marion Street NE  
Salem, OR 97301  
Gregory Churchill (800) 221-8035

*Construction Cost:* NA  
*Engineering Fees:* \$3,200  
*Project Size:* 20,400 square feet (ES)  
27,500 square feet (HS)

EESI Staff Involved: Steve Barney and Ron Anderson.

Project Description: Retro-commissioning of Building Automation System (BAS) installed in St. Paul Elementary School and St. Paul High School.

**Helman, Lincoln, & Walker Elementary Schools  
TECHNICAL ASSISTANCE STUDIES**

**ENERGY ANALYSIS**

Owner:

Ashland School District  
212 Walker Avenue  
Ashland, Oregon  
(541) 482-1626

Project Start:

October 1995

Project Finish:

February 1996

Facility Type:

Education (K-5)

Building Age (Built):

Helman - 1966

Walker - 1949

Lincoln - 1926

Client:

Oregon Department of Energy  
625 Marion Street NE  
Salem, OR 97310  
(800) 221-8035

Engineering Fees:

\$4,865

Project Size:

Helman - 34,100 sf

Walker - 38,600 sf

Lincoln - 42,000 sf

EESI Staff Involved: Steve Barney, Mike Henning, and Pete Sanford.

Project Description: Provided full technical assistance study for Ashland School District. The purpose of this report was to identify and evaluate energy conservation opportunities (ECOs) and operations and maintenance (O&M) items for Helman, Lincoln, and Walker Elementary Schools. The report was developed in compliance with the Energy Analysis Guidelines for the Oregon Department of Energy's (ODOE) Institutional Conservation Program (ICP) and Small Scale Energy Loan Program (SELP).

<b>Energy Conservation Opportunities</b>	<b>Helman</b>	<b>Lincoln</b>	<b>Walker</b>
Building Automation System (BAS)	✓	✓	✓
Lighting upgrade	✓	✓	✓
Dead band Thermostats	✓		
New night low limit thermostats	✓		
Occupancy sensor for gym fan	✓		
Thermostatic control valves		✓	✓
Steam trap repair		✓	✓
Insulate piping		✓	✓
Relief damper		✓	
Roof insulation			✓

**Benson High School Demand Controlled Ventilation Study  
EVALUATION**

Owner:  
Portland Public Schools  
PO Box 3107  
Portland, OR 97208-3107  
(503) 916-200

Project Start: November 1995  
Project Finish: July 1997  
Facility Type: Education (9-12)  
Building Age: 1916  
Engineering Fees: \$4,450

Client:  
Oregon Department of Energy  
625 Marion Street NE  
Salem, OR 97310  
Glenn Hansen (800) 221-8035

EESI Staff Involved: Steve Barney & Ron Anderson.

Project Description: EESI conducted a demand controlled ventilation study. The purpose of this study was to verify CO<sub>2</sub> control of outside air was a viable method to limit outside air introduction into variable occupancy type buildings without having an adverse effect on the indoor air quality. The analysis included testing CO<sub>2</sub> and VOC levels under various conditions in a gymnasium with a VFD fan speed control (variable air volume). Test periods also included actual monitoring of occupancies during different functions including events with spectators.

**OSB & OSD Building Automation System Cx  
COMMISSIONING**

**ENERGY UPGRADE**

Owner:  
Oregon Department of Education  
225 Capitol Street SE  
Salem, OR 97310  
(503) 378-3310

Project Start: March 1996  
Project Finish: February 1997  
Facility Type: Education  
Engineering Fees: \$950  
Project Size: 350,664 square feet

Client:  
Oregon Department of Energy  
625 Marion Street NE  
Salem, OR 97310  
Glenn Hansen (800) 221-8035

EESI Staff Involved: Steve Barney.

Project Description: EESI provided commissioning services for operational checkout of new campus wide building automation systems (BAS) for both Oregon School for the Blind (OSB) and Oregon School for the Deaf (OSD).

**Armory Lighting  
SURVEY & DESIGN**

**ENERGY UPGRADE**

Owner:

Oregon Military Department  
PO Box 14359  
Salem, OR 97309  
(503) 945-3584

*Project Start:* May 1997

*Project Finish:* June 1997

*Facility Type:* Armory

*Building Age:* 1968 thru 1993

*Engineering Fees:* \$3,300

*Project Size:* 217,968 square feet\*

Client:

Oregon Department of Energy  
625 Marion Street NE  
Salem, OR 97301  
Sharon Hanson (800) 221-8035

EESI Staff Involved: Steve Barney, Pete Sanford, and Randy Boyd.

Project Description: Lighting retrofit audits for nine Oregon Military Department (armory) buildings. The armories included:

- \* ➔ Camp Rilea (22,868 sf)
- ➔ Coos Bay (21,540 sf)
- ➔ Medford (41,329 sf)
- ➔ Grants Pass (17,865 sf)
- ➔ Roseburg (20,100 sf)
- ➔ Maison (33,339 sf)
- ➔ Lake Oswego (17,974 sf)
- ➔ Jackson (10,000 sf)
- ➔ Kleiver (32,968 sf)

The project was funded by Oregon Department of Energy.