



PERFORMANCE DESIGN DATA SHEET #421

Assumptions

- * Full cost of improvement borrowed at commercial rates at term equal to lifespan of component
- * Italics indicate confirmed data
- * Bold numbers are reader adjustable

Subject: **Personal Environmental Modules**
 Study Date: 1992
 Office Function: Insurance Company Headquarters
 Productivity Increase: *2.80%*
 Yearly Debt Service: \$183
 Return on Investment: 336%
 Simple Pay Back (in Mos.): 29

Original DPE: NA
 Current DPE: **\$22,000**
 Original Improvement Cost: NA
 Annual Cost Escalation: NA
 Current Improvement Cost: **\$1,500**
 Interest Rate: **8.75%**
 Component Lifespan (in Years): **15**

Circumstances: Construction of a 150,000 square foot, energy efficient headquarters building resulted in an overall productivity increase of 16 percent. The building included Personal Environmental Modules (PEMs) which allow individual control of heating, air conditioning, sound masking and lighting systems. A separate study which focussed on the PEMs indicated a minimum productivity increase of 2.8 percent with 4 to 6 percent more likely.

Considerations: Additional maintainance costs to change individual filters
 Potential additional savings via reduced electrical power to many small fans verses fewer large fans
Additional Data Potential additional savings because air conditioned air supplying units is warmer than air required for ceiling supply registers

KSBA Data Sheet No:
 Subject A:
 Subject B: 421
 Subject C: Personal Environmental Modules
 Subject D: PEMs
 Subject E: Environmentally Reponsive Workstations
 Company: ERWs
 Building: HVAC Systems
 Building Location: West Bend Mutual Insurance Company
 Headquarters Building
 Stand By: West Bend, WI

Kingsland
 Scott
 Bauer
 Associates

ARCHITECTS/PLANNERS/
 INTERIOR DESIGNERS/PROJECT MANAGERS

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