

# Geothermal Heat Pumps DESIGNER REQUIREMENTS

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## Hurdles:

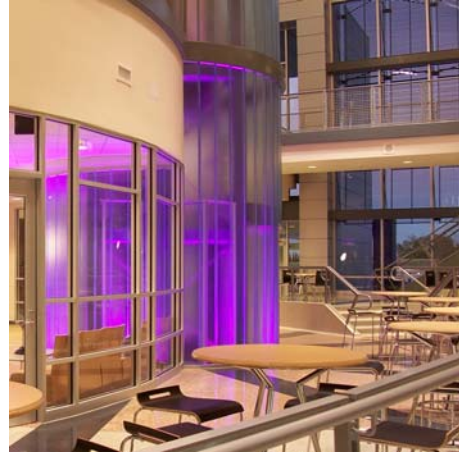
1. RESISTANCE BY DESIGN COMMUNITY, NOT FAMILIAR WITH SYSTEMS
2. POOR DESIGNS LEAD TO POOR RESULTS, DESIGNERS NOT FAMILIAR WITH THE SYSTEM (NON-CERTIFIED) BUT DESIGN ANY WAY USING WRONG MEANS AND METHODS. JOBS GONE BAD.....LEAD TO NEGATIVE RESULTS AND VIEW ... AUSTIN SCHOOLS ARE AN EXAMPLE
- 3. EDUCATION OF DESIGNERS AND INSTALLATION COMMUNITY IS THE KEY TO ACCEPTANCE AND GROWTH AND JOB CREATIONS..... NOT JUST A TEXAS ISSUE BUT A NATIONAL ISSUE... OTHER STATES WANT TO BE THE TRADEMARK STATE FOR RENEWABLES....***

## **PROFESSIONAL TRAINING NEEDED**

- **DESIGNER/ENGINEERING COMMUNITY, IGSPHA CERTIFICATION FOR DESIGNERS\***
- **ENGINEERING DEGREE PREFERRED, YEARS OF EXPERIENCE ACCEPTABLE**
- **EXPERIENCE IN HVAC DESIGN AS A FOUNDATION – PATH IS FASTER**
- **UNDERSTANDING OF HEAT GAIN HEAT LOSS PROGRAMS AND SELECTING HVAC EQUIPMENT**
- **UNDERSTANDING OF HYDRONICS AND PIPE SIZING CALCULATIONS, PUMP SELECTION AND SYSTEM COMPONENTS**
- **UNDERSTANDING OF DUCTWORK DESIGN AND AIR DIFFUSION PRINCIPLES**
- **FAMILIAR WITH BUILDING CODES, PARTICULARLY MECHANICAL AND PLUMBING CODES**
- **CAPABLE OF UNDERSTANDING WELL FIELD OR HEAT EXCHANGER CONCEPTS, DIFFERENT THAN CONVENTIONAL HYDRONIC HVAC SYSTEMS**
  
- **NOTE: IGSPHA IS CURRENTLY BEING REVIEWED BY THE DOE FOR ACCREDITATION AS A REQUIREMENTS FOR FEDERAL PROJECTS.**

## **EDUCATIONAL OPPORTUNITIES**

- **PROVIDE HVAC DESIGN CLASSES**
- **PROVIDE GEOTHERMAL DESIGN CLASSES, LEADING TO CDG TESTING**
- **PROVIDE CONTINUING EDUCATION OPPORTUNITES FOR THE ARCHITECTURAL AND ENGINEERING COMMUNITIES**
- **PROVIDE IGSPHA CERTIFICATION CLASSES AND HOST/PROCTOR TESTING**



THANK YOU