

Jason Chahal, E.I.T.

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Work Experience

Mechanical Systems Assessor 2006 to present

Jacques Whitford

FASR – Facility Assessment & Site Renewal

- Conducted Property Condition Assessments (PCA) on properties up to 2 million square feet. PCAs were reported at either a Finance or Due Diligent level.
- Produced Capital Renewal Plans (CRPs) for community centres and arenas. Analysis was generally based on visual inspections and theoretical life expectancy of mechanical systems. General costs were calculated using RS Means costing.
- Performed building inspections on both mechanical and architectural elements, however the primary focus was on the mechanical systems.
- Reports were generally produced using Jacques Whitford proprietary report writing software PARCEL however MS Word was also used. Asset management programs used were AVS, VFA, and RECAP.
- Provided quotes for insurable values using the Marshall and Swift calculation method.

Energy Performance Coordinator 2002 to 2006

Ottawa-Carleton District School Board

Design and Construction Services

- Managed utility usage at over 150 sites, including budgeting, analysis of high usage buildings using the program FASER/EnergyCap, and developing and implementing improvements. Utility bill audits yielded savings of roughly a quarter million dollars annually.
- Conducted Energy Audits and Water Conservation studies to determine the feasibility and return on investment including high efficiency equipment in renovations.
- Managed construction projects up to half a million dollars in value from conception to completion. The process consisted of developing the construction specifications, selecting design consultants, awarding contracts and supervising the progress to completion.
- Implemented a power analyzer metering program that identifies building harmonics and power factor problems to extend the life of mechanical systems and reduce peak energy demand. With a view to correct Power Factor problems in high consumption buildings.
- Developed specifications through heat gain/loss calculations to size replacement exhaust fans, duct work and boiler systems to meet new building requirements.
- Used the RECAPP asset management program and other databases to produce reports for the Ministry of Education on the theoretical expected asset life of all the components located at the sites under departmental control. The RECAPP program was used to compile an initial budget for system upgrades and renewal.

- Developed detailed technical specifications to replace hot water circulating pumps with variable frequency drives (VFD) integrated into the building automation system to reduce energy costs.
- Developed operator interface graphics for Building Automation Systems (BAS) for VCI and Base control systems.

Mechanical Systems Engineering Student

Summers 2000 & 2001

Department of National Defence

QETE – Quality Engineering Testing Establishment

- Conceived and designed a purpose-built test apparatus using Imagineer to create a solid 3D model and a CNC milling station to produce the final product.
- Created 3D models using SolidWorks and imported the files into ANSYS to perform Finite Element Analysis (FEA).
- Contributed to engineering reports including development of a Military Specification to standardize droplet size when testing durability of avionics circuitry.
- Studied the Pressure Vessels / Boiler Code to determine allowable alterations to environmental chambers.

Education

Bachelor of Engineering - Mechanical Engineering
Carleton University, Ottawa, Ontario, Canada

2006

Engineering Affiliations

Engineer in Training (**EIT**) with Association of Professional Engineers, Geologists, and Geophysicists of Alberta (APEGGA)

American Society of Heating Refrigerating and Air-conditioning Engineers (ASHRAE)

- Associate Member 2006
- President of the Carleton University Student Chapter 2004 & 2005

Software Knowledge

Design and Drawing Programs:

- AutoCAD 2004/2006/2007, ProEngineer, Solid Works, Solid Edge

Office Applications and Databases:

- MS Office: Word, Excel, Access, Power Point, Microsoft Project
- Corel Office Suite: Word Perfect, Quattro Pro
- MathCAD 2001i, Matlab

Energy Tracking and Auditing Programs:

- FASER, EnergyCap

Property Condition Assessment Reporting Programs:

- VFA, RECAP, AVS