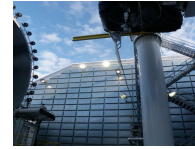


Standard Aero GE Research, Development and Test Centre

Address (Map): 2000 Wellington Ave, Winnipeg, Manitoba R3H 1C2 Canada
 Sector: Airport Delivery Type: Design-Bid-Build
 MCW Office: Winnipeg Status: Complete



Mechanical:
MCW Consultants Ltd.



Electrical:
MCW Consultants Ltd.



Structural:
Hanuschuk Consultants Inc.



3D Modelling / Design Services:

KGS Group

Final Project Value:
\$50,000,000

Project Description

The scope of work for the GE Research, Development, and Test Centre included electrical and mechanical design required for the relocation and expansion of an existing Jet Engine test facility.

The facility is located on the secure side of the James A. Richardson International Airport and consists of a rail mounted movable "Wind Tunnel" consisting of seven 250HP fans, spray equipment, supporting process equipment, and a control room / office building complex capable of subjecting test engines to various cold weather tests. Much of the existing process equipment and control room are compartmentalized into shipping containers making the facility semi-relocatable.

Specific design by MCW included:

- Electrical service, power and interconnection design
- Hazardous area electrical design
- Site overhead cable tray design
- Site lighting & miscellaneous power
- Electrical and mechanical design for the control building complex
- Underground piping design for the site drainage including hazardous material separation and containment

MCW was responsible for design and construction support of many new electrical and mechanical site and building services and systems. MCW's electrical design included the facility electrical service (diesel generators with provision for future 25kV utility service), new site electrical distribution equipment, underground and overhead cabling for facility interconnection (detailed overhead cable tray system design by KGS), site grounding, site lighting, and site lightning protection. Also included in MCW's electrical design were building systems designs for a new storage building, oil separation and pumping building, and temporary control building facility. Included in MCW's mechanical design were drainage of the test platform and site pad including systems for oil removal and water holding for pump out. MCW additionally provided on-site support for construction and CSA re-certification of existing electrical equipment.

Award:

Association of Consulting Engineering Companies Manitoba Industrial Award of Excellence, 2013