# **James Fowler Senior High School Calgary Board of Education**

## **School Facilities Evaluation Project April 16, 2000**

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## **Evaluation Team**

**Typical Photographs** 

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Photo page 1

# **Executive Summary**

In March 2000, Alberta Infrastructure engaged Building Science Specialists to evaluate the condition of 21 schools within the Calgary Board of Education. A standardized form, developed by Alberta Infrastructure and supplied to the evaluation team by the regional coordinator was used to document the condition and recommendations.

The original building was constructed in 1962. A library addition was added in 1979. A small addition was added in 1998 to house a handicapped elevator. Minor renovations have been made to the building, upgrading the Office and main entry foyer. Modernizations have occurred, upgrading some classrooms to computer labs

The school is constructed of concrete slab on grade and suspended precast slabs at the upper floors. Walls are precast concrete with brick facing, with giant brick and concrete block interior walls. Roofs are flat SBS or BUR on precast concrete T's.

### **Summary of Observations and Recommendations**

The school jurisdiction has a roof replacement program. No reports are available for the roof and further investigation is required. The presence of hazardous materials in the building is expected in piping insulation, and some interior finishes. These issues are dealt with as the jurisdiction undertakes upgrading. The costs associated with removing hazardous materials have not been included in any of the costing.

#### Architectural

The exterior of the building is finished in brick with the ends of precast concrete panels and structural T's forming the fascia band. The curtain wall windows should be replaced and the expansion joints recaulked. Handicapped accessibility has been addressed. The parking lots require resurfacing and an approach stair should be replaced. Repairs are required to the floor slab in the science wing corridor. A new ceiling is needed in the gymnasium. Toilet partitions require replacement. Door hardware should be upgraded to lever handles as the existing hardware wears out.

#### Mechanical

The heating plant has recently been replaced. The ventilation systems will require extensive upgrading and maintenance over the next short while. Exhaust systems require replacement, including the gymnasium and washroom systems. Three new hot water heaters are required. Many required fire dampers are missing in the vocational wing and additional fire extinguishers are required throughout the building.

#### **Electrical**

Additional exterior lighting is required at the south parking lot. Old battery packs require replacement. The new computer hubs require dedicated cooling and proper exhaust. The handicapped lift requires a telephone and link to security.

#### Costs

The estimated construction costs for the remedial work in the attached evaluation form has been based on the Costing Unit Rate Chart developed by Alberta Infrastructure. Where this data was incomplete or inappropriate to the recommended work, unit costs based on the local Calgary market were used.

1. 2. 3. 4. 5.	Site related work Building exterior Building interior Mechanical systems Electrical systems	\$56,500.00 \$711,000.00 \$650,500.00 \$393,000.00 \$17,500.00
6.	Portables  Total Estimated Costs	\$35,500.00  \$1,864,000.00

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## **Space Adequacy**

The existing area, according to the School Building Area Guidelines and Supplement – maximum Gross Area of School Building Projects is deficient.

Existing Total Gross Area (square metres) 24379
Projected required total gross area (square metres) 18606

Overage / (Deficiency) (square metres) 5773

### **Further Investigation**

Further investigation is required to determine the impact of the removal of hazardous material during any renovation work. Code related issues with respect to fire separations should be reviewed at the time of renovation. The school has recently had a major upgrade to accommodate computer cabling. Many fire separations throughout the building have been comprised. These should have been repaired as part of the upgrade. Further investigation in required. Some cracking is noted near the library. The cause requires further review. There is no report on the roof; it requires further review, as do the roof accessories.

#### **School Plan Data Information**

The plan information for the building was supplied by the school jurisdiction. Area information was provided by Alberta Infrastructure. The information generally appears to be up to date with some minor room function revisions.