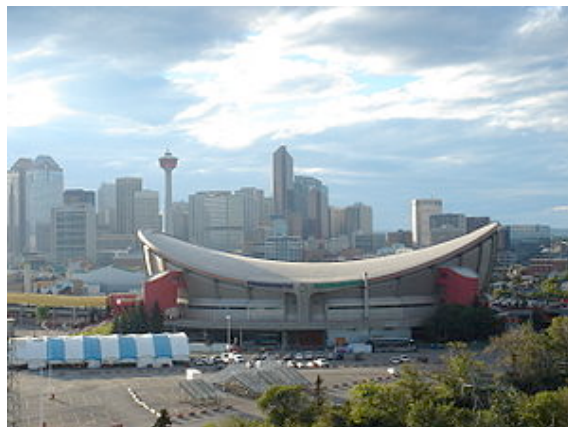


Three Canadian Construction Case Studies

Published here May 2010

Note: The *Issues for Discussion* in the following case studies may require research on the Internet

Project #1: Calgary's Saddledome Project



Calgary's Saddledome

News Report: Burrs under Calgary's Saddledome

(Published in the Vancouver Sun newspaper, September 17, 1983, under Life in Alberta (Canada), by Edmonton Journal's political columnist Don Braid)

Construction for the 1988 Calgary Winter Olympics was supposed to be lean and efficient, with every cost under control, if only to show those incompetents in Montreal that westerners know how to do these things. But suddenly the Games are embroiled in a Montreal-like dispute over soaring costs, complete with charges that the provincial government is covering up the facts. Some Calgarians fear this is only the start of a scandal that could saddle the city with debts to rival the \$1.2 billion shortfall Montreal faced after the 1976 Summer Games. That seems unlikely because the Winter Games are much smaller than the summer event, but Calgarians still have cause for worry.

The controversy centres on the Saddledome, a 17,000-seat stadium being built on Calgary's famous Stampede Grounds. Named for its roof, which resembles a giant saddle, the stadium will host Olympic hockey and skating events. Unlike Montreal's still-unfinished Olympic Stadium, the Saddledome will be completed far ahead of schedule. It is expected to open Oct. 15 with an NHL game between the Calgary Flames and the Edmonton Oilers.

The problem is money. The Saddledome was expected to cost \$83.5 million, but the Olympic Coliseum Society, which oversees construction, recently discovered that the project is \$16.5 million over budget. This was a shock to the city's pride as well as its pocketbook. The society asked the province to investigate, and a team of experts from housing and public works began to poke into the books.

Their report was a long time coming, and when it was ready the government treated it like a ticking bomb, distributing only a two-page summary of the full study. Even that was confidential until the Calgary Herald obtained a copy. The summary provided few details, but many of its 11 conclusions were startling.

It said that:

- The project's cost-control and reporting methods were inadequate
- The construction company (Cana Construction Ltd.) didn't tell the society about possible overruns soon enough
- Cana should have provided adequate cost projections for cost-plus work
- Teamwork and communications were faulty, and that
- The final cost is still unknown.

The summary also faulted the society's project manager for relying too much on Cana's advice. The manager at the time was Bill Pratt, who is now in a crucial job as president of the Olympic organizing committee. These results sound alarmingly like the "Montreal disease," especially since it's already known that one contract has been awarded without public tenders, and is expected to cost double the \$4 million expected. City aldermen, who are stuck with covering most of the deficit, are demanding all the information behind the province's study. So are several MLAs from Premier Lougheed's own government.

Tory MLA Stan Nelson, a former Calgary alderman, says he's embarrassed because he can't tell his constituents what's going on. "As a member of the Calgary caucus, I'd feel more comfortable if I knew what I was talking about." But the government flatly refuses to release the full study. Norman Fleming, a deputy minister who headed the probe, said people who want reassurance "can trust their mayor and trust me for the province... we're not prepared to join in any orgy in this thing."

This doesn't satisfy Elaine Husband, an outspoken alderman who wanted to delay funding the deficit until the province came clean. "I suggest there are some names named [in the full report]," she says. But the province doesn't want to reveal them because "it would look a little silly internationally" if top Games officials were implicated.

Meanwhile, nearly everyone who knows anything has fallen silent. Bill Pratt refuses to discuss the Saddledome. Society members who appeared before city council said their lawyer had advised them not to talk. Cana Construction says it has "no objection to a full scale investigation," but won't discuss the findings.

Update January 2010

The Pengrowth Saddledome, is the primary indoor arena in Calgary, Alberta, Canada. It has a seating capacity of 19,289 and is the home arena of the Calgary Flames of the National Hockey League, the Calgary Hitmen of the Western Hockey League and the Calgary Roughnecks of the National Lacrosse League. The facility hosts concerts, conferences and other sporting championships, and events for the Calgary Exhibition and Stampede.

Located on the Stampede Grounds on the east end of downtown Calgary, the Saddledome was built in 1983 to replace the Stampede Corral as the home of the Flames and to host ice hockey and figure skating at the 1988 Winter Olympics. The arena underwent a major renovation in 1994–95, during which its original name of Olympic Saddledome was changed to Canadian Airlines Saddledome. The facility was given its current name in 2000.

The Saddledome is owned by the City of Calgary who leased it to the Saddledome Foundation, a non-profit organization, to oversee its operation. It is managed by the Calgary Flames who have a lease

agreement until 2014. The Flames have expressed a desire to build a new arena, leaving the long term future of the facility unclear.

Issues for discussion

1. What is the difference here between scope control versus cost control?
2. What part does "risk" play in this case?
3. In your opinion, how successful does the Calgary Saddledome appear to have been in use?

Project #2: Walter C. Mackenzie Health Sciences Centre Project



Walter C Mackenzie Health Sciences Centre

News Report: "Management breakdown" quadruples Alberta projects' cost

(Published in The Globe and Mail newspaper, December 18, 1981, by columnist Barry Nelson)

CALGARY - The Alberta Government will spend at least \$364-million more than it planned out of the Alberta Heritage Savings Trust Fund for the Walter C. Mackenzie Health Sciences Centre. The hospital and research centre in Edmonton, budgeted at \$135.6-million, will instead cost more than \$500-million. A significant portion of the increase is due to "management breakdown" and "loss of cost control".

The exact cost of the Walter C. MacKenzie health sciences centre, planned for completion in 1986, is "an unknown, but I would expect it would be in excess of \$500-million at today's rates," Hospitals Minister David Russell recently told a Legislature committee, under sharp questioning from NDP Leader Grant Notley and Thomas Sindlinger, the Calgary MLA who was expelled from the Conservative caucus for disagreeing with the Government about constitutional policy and the use of the \$9-billion Heritage Fund.

Asked why the Legislature was being asked for extra money for the health sciences centre, the minister at first said repeatedly it was needed for "ongoing construction and equipment." But after intense grilling he finally acknowledged: "It doesn't give me a great deal of pleasure to stand in this Legislature and use terms like loss of cost control or management breakdown, but that's what happened." He blamed "the owners" (members of the hospital board) for the situation. Members of the board spoke to him after they "unearthed and identified some breakdowns in control of the various components and roles of people in key positions with respect to the project

"The architect was working on a time-plus-cost basis. The owners were letting the architects take

instructions from any number of bodies. They should have had only one spokesman, but you had all kinds of user groups going and looking at sketch plans and saying to the architects: 'We don't want it this way. Try it bigger this way. Try moving this here.'"

The architects' fee for Phase 1 of the centre "was way more than it should have been, not because they were doing anything dishonest, but simply because everybody and their cousin was giving them instructions, which they were following." In addition, "there didn't seem to be any one person watching . . . cost control . . . One example . . . was that the project director was not reporting the cost of approved extras he had been approving. He somehow seemed to be under the impression that they were outside the normal contract amounts and would be dealt with later . . . For the life of me I can't figure out why a person would take that attitude, but he did."

The project manager has since resigned, but has been appointed as a consultant to the project.

Mr. Russell said he has agreed to allow Phase 1 to be completed, but has asked the hospital board to "draw back their aspirations a bit and see if Phase 2 could proceed by way of renovations to existing buildings or to proceed with new construction."

Mr. Notley said in an interview yesterday that blaming the hospital board for the cost increase does not absolve the Government because the project was also being monitored by an implementation committee that includes a deputy minister of Mr. Russell's department.

Update March, 2006

The Walter C. Mackenzie Health Sciences Centre was named after Walter C. Mackenzie - a prominent surgeon, researcher, educator, and health care administrator. The Centre integrates patient care, health education, and research. The Centre was built in two phases that were completed in 1983 and 1986. The cost of the second phase has been reported as \$42.8 million. Two of the most visible features of the centre's interior are the glass-domed courtyards and lamp-lit walkways. Abundant greenery gives the Mackenzie Centre a resort-like atmosphere that is both relaxing and therapeutic.

Located on the first floor are the McMullen Art Gallery and the Health Sciences Bookstore. In addition to the Faculty of Medicine General Office located on the second floor, the Walter C. Mackenzie Centre houses the Departments of Laboratory Medicine & Pathology and Radiology and Diagnostic Imaging; the Divisions of Continuing Medical Education and Health Sciences Media Services and Development; and two key educational resources: a health sciences library and a 400-seat auditorium.

Issues for discussion

1. What might motivate the project director to not report the cost of approved extras?
2. Why was scope and control not effective?
3. In the end, do you think the public appear to have got value for money?

Project #3: Kananaskis Country Recreation Development



4th hole Mt. Kidd Course

News Report: Scope creep adds millions to campsites project

(Published in The Globe and Mail newspaper, December 18, 1981, by columnist Barry Nelson)

CALGARY - The Alberta Government will spend at least \$173-million more than it planned out of the Alberta Heritage Savings Trust Fund for the Kananaskis Country wilderness area campsites project. The site being developed just east of Banff National Park, will cost \$213-million instead of the planned \$40-million. Recreation and Parks Minister Peter Trynchy said the Kananaskis Country project will cost an additional \$173-million because "we've had some program expansions and additions and inflation." The biggest addition to the wilderness-area development, which will provide 3,000 campsites, is the spending of \$103-million for paved roads instead of the \$6-million originally budgeted for gravel roads, because "we've had a number of requests from citizens who were not satisfied with gravel roads," Mr. Trynchy said.

Other additions include expansion of a golf course to 36 holes from 18, remodeling of a forestry experiment building, added gravel for roads, flagpoles, and a solid-waste transfer station, the minister added.

Update December 2008

Kananaskis Country is part of the Alberta Rockies region on the eastern edge of the Rocky Mountains. It is located about half an hour's drive west of Calgary, Canada, south of Trans-Canada Highway 1. The area includes Peter Lougheed Provincial Park, a small town site, two ski resorts and an outstanding golf course. The 36 holes designed by Robert Trent Jones Sr. is surrounded by mountains and is one of the best (and busiest) golf courses in North America.

The Kananaskis country has since become a very popular recreation destination. Many activities are available in the area, both summer and winter. It includes an ATV area for ATV users, cross country and downhill skiing, ice fishing, snowshoeing, snowmobiling, mountain biking, horseback riding, backpacking, backcountry camping, day hiking, canoeing, fishing, and golf.

Issues for discussion

1. Much of the cost overrun appears to be an increase in scope. How should this have been handled?
2. Why do you suppose it was handled the way it was?
3. Discuss the project from the perspective of "Return on Investment"