



# MARKET INTELLIGENCE

4TH QUARTER / DECEMBER 2005

## THE PERFECT STORM HAS COME WE'RE IN THE MIDST OF THE WORST OF IT

- Abbotsford Hospital and Cancer Centre
- Academic Ambulatory Care Facility at VGH
- New construction at UBC, SFU and the Kwantlen College Cloverdale Campus
- Sea-to-Sky Highway
- RAV transit line

We now see escalation continuing at 11% through 2006, then declining to 10% in 2007 and to 9% by 2009. The timing suggests that we're now in the midst of the worst of the escalation. We expect that the decrease will start taking hold in late 2006, a year later than first anticipated. As challenging as the increases have been – and will remain – 2005 could have been much worse. Beside the expected cost increase drivers, there were other contributing factors, including:

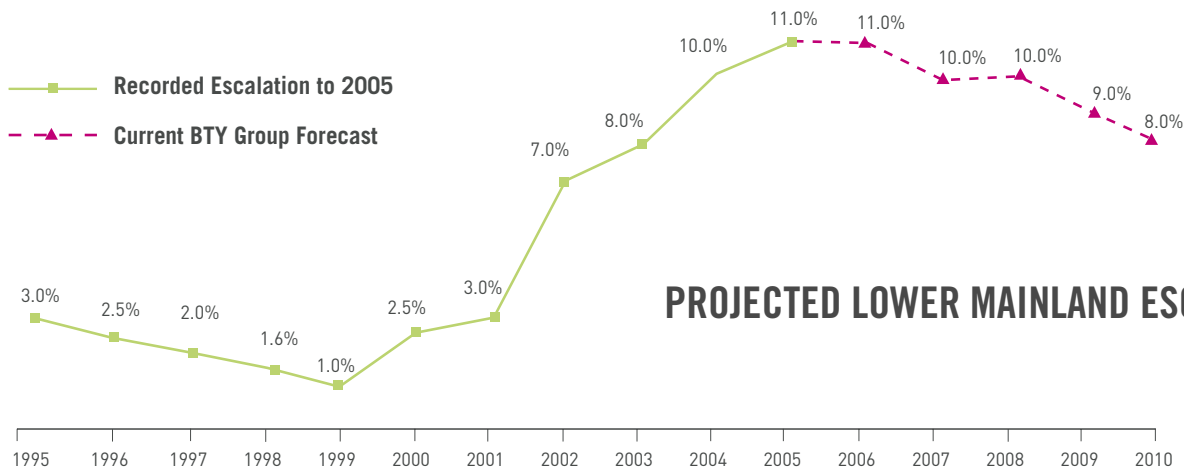
- The spike in gasoline prices over the summer in the wake of Hurricanes Katrina and Rita. *continued page 2*

### 4TH QUARTER HIGHLIGHTS

- Construction cost escalation 11% for next 12 months
- Labour costs increase as productivity drops
- Residential construction volume decreasing slightly
- Non-residential construction set to post a record year in 2006

In our 2004 4th Quarter newsletter, BTY Group forecast that BC would experience a perfect storm of escalating construction costs. We believe we're now in the middle of the worst of the anticipated escalation, driven by increased construction volumes, a limited contractor and labour pool and rising materials costs. They have combined to drive *up cost escalation on building construction by 10% - 11% in 2005*. We have now seen the actual start of construction on several planned major projects, including:

- Ten different Olympic facilities, including the Richmond Speed Skating Centre.
- Vancouver Convention Centre
- Expansion at YVR



PROJECTED LOWER MAINLAND ESCALATION RATES 2005-2010

# THE PERFECT STORM HAS COME

WE'RE IN THE MIDST OF THE  
WORST OF IT

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- The hurricane-related disruption of refining capacity in the southern United States led to price increases in some construction inputs (plastic products, copper tubes/fittings, cast iron, etc.)
- The trucking strike in Vancouver that followed the gas price surge. Given the pressures – both expected

and unforeseen -- the construction industry overall has managed to cope with escalation and rising construction cost. The coming year will see continued pressure, but not at an increasing rate. Executing projects to success still depends on adapting and adjusting to the market. We offer strategies and tactics that can help.

## MANAGING THE RISKS THAT COME WITH RISING COSTS

**There is no getting around rising costs, but organizations can reduce the risks they pose.**

### Be realistic.

Thorough research on cost and scope will provide a precise picture of exactly what can be accomplished within budget. It will also indicate if scaling back is needed which can drive the search for cost-saving measures and efficient strategies to plan and execute projects.

### Leverage time.

Build escalation rates into your budget from the start to the midpoint of construction. This will protect the project from creeping cost escalation over time while saving time and soft costs in repeated budget revisions.

### Be vigilant.

Keep a very close eye on ALL cost increases – and evaluate your position regularly. Escalation can occur at different rates for different project components. Having up-to-the-minute information can affect design decisions.

### Be strategic.

Schedule tender calls so that projects have different closing dates. Effective project timing will allow maximum contractor interest and participation, by attracting the greatest possible number of bidders for each to drive competitive bidding.

### Be innovative in procurement.

Explore alternatives to the traditional lump-sum bid approach. Partnering, traditional lump sum with optimized design options, or guaranteed maximum price (GMP) arrangements might serve better in a market with rising costs.

### Focus on constructability.

Investigate design choices that will enhance constructability and encourage bidders.

### Secure expertise before you start.

Retaining qualified quantity surveyors and program managers can enhance your ability to control costs and expedite construction.

## DESPITE EASING RESIDENTIAL CONSTRUCTION, DEMAND FOR LABOUR WILL REMAIN STRONG.

Residential construction in BC reached a highpoint with some 33,600 starts in 2005; the CMHC now forecasts a slight drop to 31,600 in 2006, and the Construction Sector Council sees gradual decline to 26,000 by 2013. While some see the residential market's record housing prices in Greater Vancouver as a bubble, in the view of CMHC, this is not the case. In their Housing Market Outlook, Fall 2005, they note that Greater Vancouver's housing market is backed by solid economic fundamentals. Speculative activity, a key indicator of a bubble, is less than the historic average. The region has a unique combination of limited land supply and strong appeal in a surging Provincial economy, buoyed by its Asian connection and Olympic investment.

Combined with continuing housing demand, the sustained surge in public infrastructure projects will see continued strong demand for construction labour, which is currently in short supply, with consequent upward pressure on labour costs. Neighbouring Alberta's own construction boom, led by the tar sands development, further exacerbates the challenge of finding skilled trades.

Trades such as electrical and plumbing can move easily between residential and civil projects, but there will be an increasing undersupply of non-residential trades, including ironworkers, boilermakers, millwrights and industrial mechanics, refrigeration and air-conditioning mechanics, and those working in earthworks, reinforcing steel and concrete forming. The concentration of projects in southwestern BC is also drawing off workers from rural and small communities, where almost half the construction companies surveyed by the B.C. Chamber of commerce reported vacancies in hard-to-fill positions. Contractors report falling productivity due to a rising proportion of new entrants to the construction trades.

# NON-RESIDENTIAL CONSTRUCTION IN BC AT AN ALL-TIME HIGH

**Non-residential construction in BC has been trending upward strongly since mid-2004 and is now at an all time high.**

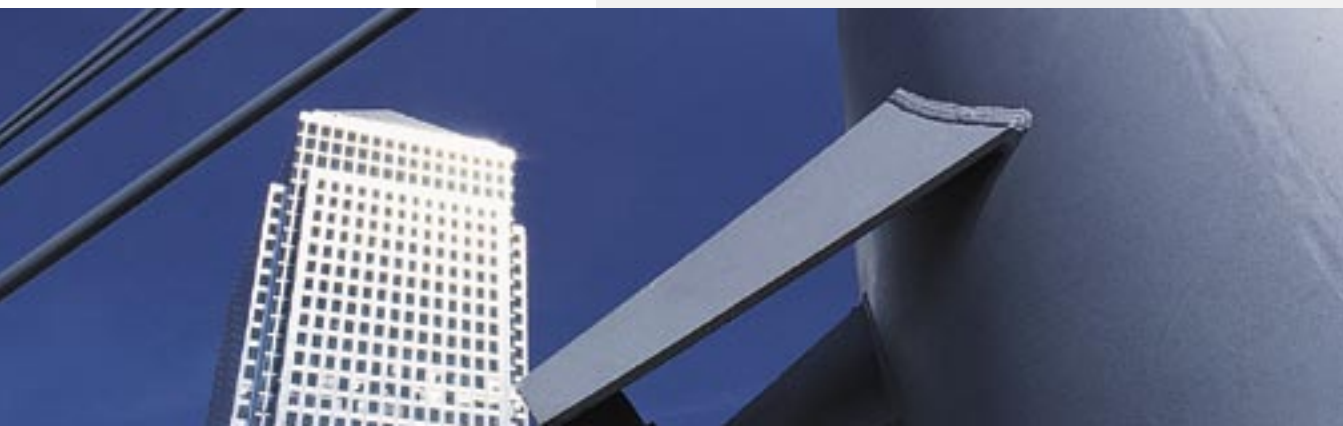
The strongest gains during this growth phase have been in office, hotel, school, hospital and storage buildings. Growth in non-residential construction is forecast to continue. According to Statistics Canada's latest estimates, investment in non-residential building construction in BC in the first nine months of 2005 was up 21% from the same period in 2004.

**The strongest gains during this growth phase have been in office, hotel, school, hospital and storage buildings.**

Total non-residential permits in BC were on track to post a gain of at least 50% in 2005 and set an all-time record in both current and inflation-adjusted dollars. With record permit levels in 2005 and much of this work to be performed in 2006, the coming year is likely to set another record.

## TRADE ESCALATION 2004 - 2005

Excavation	12 – 16%
Piling	15 – 20%
Concrete Formwork	20 – 25%
Concrete Material	8 – 10%
Reinforcing Steel	10 – 15%
Masonry	10 – 12%
Structural Steel/Metal Fabrication	12 – 15%
Finish Carpentry	5 – 10%
Metal Panels/Cladding	5 – 10%
Aluminum Windows/Storefronts/Curtain Wall	15 – 20%
Roofing (Built-up)	20 – 25%
Steel Studs / Drywall	10 – 15%
Ceramic/Quarry Tiles	7 – 10%
Painting/Vinyl Covering	5 – 8%
Millwork & Cabinetry	10 – 12%
Elevators	5 – 8%
Mechanical	15 – 20%
Electrical	8 – 12%
Landscaping	3 – 5%



# RESIDENTIAL INCREASES ACROSS THE PROVINCE

**BTY Group has surveyed residential construction costs in the urban core of Greater Vancouver and the rest of the province, comparing costs for December 2004 and December 2005.**

The increase in residential high-rise construction costs in Greater Vancouver is close to the overall average for all building construction, with increases in the 10 - 15% range.

Low-rise condominiums and townhouses have increased more in the rest of the province than in Greater Vancouver. This mirrors the pattern of housing starts in BC, as the four major urban centres (Vancouver, Victoria, Abbotsford and Kelowna) registered a small decline, while starts were up 12% elsewhere.

Escalation in wood-frame construction was generally lower as framing materials and labour were not subject to the same shortages experienced on concrete-framed buildings.

We note that the average unit rates reported for similar product type for Greater Vancouver are significantly higher than for those located elsewhere. This is partly a result of a cost premium for building in the urban core, coupled with higher quality expectations for units located in Vancouver.



**Residential high-rise costs in Greater Vancouver are close to the overall average increase for all building construction, but low-rise condo and townhouse costs have increased more outside Greater Vancouver.**

## RESIDENTIAL INCREASES

PROJECT TYPE	Dec-04 \$/Sq.Ft.	Dec-05 \$/Sq.Ft.	% Variance
Residential Highrise - Greater Vancouver	\$ 202	\$ 230	13.9%
Low Rise Condo - Greater Vancouver	\$ 178	\$ 187	5.1%
Low Rise Condo - Outside Greater Vancouver	\$ 98	\$ 113	15.3%
Townhouse - Greater Vancouver	\$ 115	\$ 122	6.1%
Townhouse - Outside Greater Vancouver	\$ 90	\$ 98	8.9%

The costs per square foot shown above are based on total construction costs and the gross building area, excluding the area of underground parking.

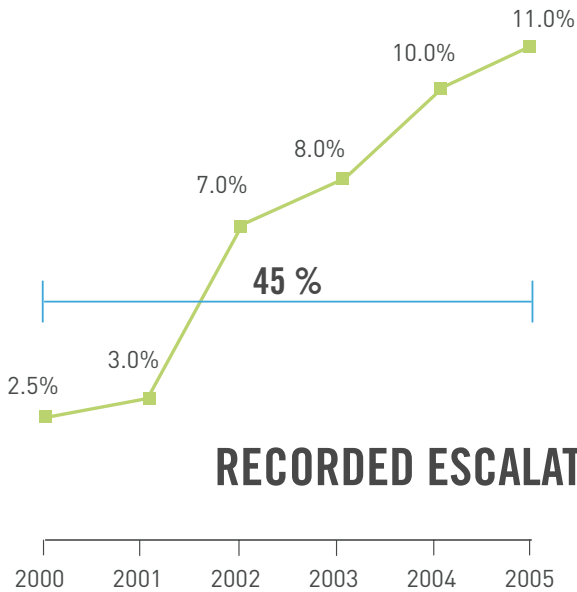
The reader is cautioned that the unit rates reported represent an average of projects and encompass a broad range of quality and design realities. We are not advising the reader of the potential cost of a project in these locations, but analyzing the trend of unit rates in a region over the span of a year.

# A NEW REALITY OF CONSTRUCTION COST

The 1990s was a period of relative cost stability in construction costs. Since 2000, clients, consultants and contractors have had to continually alter their expectations, and their budgets, to reflect the new reality of construction cost in B.C. The broad average of escalation rates in the Lower Mainland shows a cumulative, compounded increase of 45% across all projects. The table below shows changes in cost ranges for some major building types over the same period.

## UNIT RATES

PROJECT TYPE	2000	2005
Residential Care Facilities	\$1700 - 1800/m <sup>2</sup>	\$2300 - 2600/m <sup>2</sup>
Acute Care Hospitals	\$2800 - 3200/m <sup>2</sup>	\$3900 - 4200/m <sup>2</sup>
Research Laboratories	\$2700 - 3000/m <sup>2</sup>	\$4200 - 4400/m <sup>2</sup>
High-rise Residential	\$1700 - 1800/m <sup>2</sup>	\$2300 - 2500/m <sup>2</sup>



The broad average of escalation rates in the Lower Mainland shows a cumulative, compounded increase of 45% across all projects.

# LOOKING AHEAD: THE ESCALATION FORECAST

**With its continued strength the BC economy has ample room for growth.**

In developing an escalation forecast for the next year and beyond, we look at a range of indicators – and the interrelationships among them.

- **Percentage increase** in real GDP – projected to be around 3.3% for 2006.
- **Net immigration** and employment – net immigration expected to be 44,000 in 2006 with net employment projected to increase by a further 3.1% in 2006 (+66,000). The unemployment rate is expected to decline to 4.9% of the labour force.
- **Interest rate** – the prime lending rate to stay within the 4.75% - 5.5% range for 2006.
- **Value of the Canadian dollar** – the continuing strong dollar reduces the cost of imported materials.
- **Residential and non-residential construction volumes** – projected \$9.5 billion worth of building construction spending in BC in 2006.
- **Year-over-year housing starts** in BC – to moderately decline to 31,600 in 2006 from 33,600 in 2005, but demand to remain robust.

- **Labour rates and material prices**
  - average BC weekly wage expected to increase by 3.2% in 2006.

With its continued strength the BC economy has ample room for growth. The provincial construction GDP will be supported by continued spending on residential construction and increased spending on infrastructure projects, many of which got underway in 2005. We expect that the coming on stream of these capital projects coupled with increasing pressure on labour will keep escalation running at 10% to 11% through 2006.

As the major non-residential projects work their way through the pipeline, with most of the contracts and resources in place, the escalation rate should decline in 2007-2008 to 10%, then fall again from 2008 to 2009 to 9%. By the end of 2008, most of the Olympic facilities will have been completed in order to meet testing deadlines for early 2010. The worst of the “perfect storm” will have passed by then and we expect the rate of construction escalation to decline through 2015 to the range of the general inflation rate, between 2% and 3%.



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*The opinions expressed in this newsletter are those of BTY Group and are provided as information only. Readers are cautioned on the use of the data provided. BTY strongly recommends that readers retain the services of a professional Quantity Surveyor prior to establishing budgets for their projects.*

