



CITY OF VANCOUVER

ADMINISTRATIVE REPORT

Report Date: July 9, 2007
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Meeting Date: July 24, 2007

TO: Vancouver City Council
FROM: General Manager of Engineering Services
SUBJECT: Knight at 49th Left Turn Bays - Cost Escalation

RECOMMENDATION

THAT Council approve a revised total cost estimate of \$4,215,000 for the construction of north and south bound left-turn bays on Knight Street at 49th Avenue, with funding from the following sources:

1) The original amount approved in 2005:

\$1,250,000 - 2003 Streets Basic Capital for Clark-Knight Corridor Improvement
\$1,250,000 - TransLink 2002 and 2003 Minor Capital Cost Sharing
\$ 500,000 - Federal Border Infrastructure Fund Cost Sharing
\$3,000,000

2) Proposed additional funding sources:

a) Recoveries from outside agencies -

\$250,000 - TransLink 2003 Minor Capital Cost Sharing
\$250,000 - Insurance Corporation of British Columbia Cost Sharing
\$357,500 - Proposed TransLink 2008 Minor Capital Cost Sharing
\$857,500

b) 2003 Streets Capital

\$250,000 - 2003 Streets Basic Capital for Arterial Improvements - Unallocated
\$107,500 - 2003 Streets Basic Capital for Clark-Knight Improvement - Clark at 6th Left Turn Bay Anticipated Surplus
\$357,500

COUNCIL POLICY

On May 27, 1997 Council approved the Vancouver Transportation Plan which recommended that staff develop improvements for goods movement and safety along Knight Street.

On January 15, 2002 Council approved the Victoria-Fraserview/Killarney Community Vision which provided a direction to improve conditions and safety on Knight Street for residents, pedestrians and transit users.

On April 20, 2003 Council approved the Clark-Knight Corridor Whole Route Analysis project to develop a corridor plan that would recommend improvements for pedestrians, transit users, residents and goods movement.

On March 29, 2005 Council approved the Clark-Knight Corridor Plan which outlined various measures to improve liveability and transportation along the corridor, including a left turn bay on Knight Street at 49th Avenue.

On July 21, 2005 Council approved the construction and budget for left turn bays on Knight Street at 49th Avenue.

PURPOSE

The purpose of this report is to inform Council of estimated cost escalations for the Knight at 49th Left Turns Bay project, and request Council approval of additional funding sources to cover the expected increased costs.

BACKGROUND

Clark Drive and Knight Street provide a vital transportation corridor through Vancouver. It is the most heavily used truck route in the City and is a key regional connection between Vancouver and Richmond, Delta, Surrey and the United States. It is this important transportation function that led to a direction in the 1997 Vancouver Transportation Plan that staff undertake design improvements for goods movements, subject to a Whole Route Analysis (WRA) of the corridor.

On April 10, 2003 Council approved the Clark-Knight Corridor WRA project which identified safety at Knight Street and 49th Avenue as a key issue to be addressed. This intersection currently ranks in Vancouver's top five intersections for both number of crashes and number of crashes involving injuries. A study of ICBC claims data from 2000 to 2002 showed that over 160 crashes were occurring at this intersection each year, resulting in approximately \$1.37 million dollars per year in claim costs. Furthermore, 28% of these crashes resulted in personal injuries. On March 29, 2005 Council approved the Clark-Knight Corridor Plan, which included a recommendation to improve safety on Knight Street by constructing left turn bays at 49th Avenue. Construction for this location was subsequently approved by Council on July 21, 2005.

Currently construction is underway for the left turn bays on Knight at 49th. Work began in June of this year and is expected to be complete by Fall 2007. The majority of property needed for this project has been purchased, with access to the remaining properties expected shortly.

DISCUSSION

The final construction design for this project was completed in May 2007. Completion of this final design also allowed staff to complete a final construction cost estimate. During this Spring, property acquisition cost estimates were also updated, with most of the estimate based on actual purchase prices. The updated estimate for construction of north and south bound left-turn bays on Knight Street at 49th Avenue is now \$4,215,000. This includes \$255,000 (15%) for contingencies.

The cost escalation is broken down as follows:

	2005 Approved	2007 Estimate
Property	\$2,000,000	\$2,515,000
Construction	<u>\$1,000,000</u>	<u>\$1,700,000</u>
Total	\$3,000,000	\$4,215,000

Property acquisition accounts for a majority of the project costs. The real estate boom in Vancouver has resulted in significantly higher property costs than what was originally estimated in 1999 and reported to Council in 2005.

Similarly, construction costs have also escalated since the time of the original 1999 estimate. Some examples include:

- Curb and gutter** - increased from \$74/meter to \$163/meter (\$60,000 increase),
- Asphalt grind and overlay** - increased from \$11/sq. meter to \$22/sq. meter (\$88,000 increase),
- Sidewalks** - \$60/sq. meter to \$111/sq. meter (\$46,000 increase), and
- Slot repairs** - \$39/sq. meter to \$85/sq. meter (\$69,000 increase).

Also contributing the increased cost of the final construction estimate were increases in the project scope that were not reflected in the earlier design and estimate. Some examples of these include:

- Extra street lighting and signal costs** - \$160,000,
- Extra retaining walls** - \$51,000,
- Extra traffic control for safety at adjacent school site** -\$20,000,
- Extra wheel chair ramps** -\$30,000, and
- Red light camera** -\$20,000.

FINANCIAL IMPLICATIONS

It is proposed that funding, to cover the cost escalation to \$4,215,000 for construction of north and south bound left-turn bays on Knight Street at 49th Avenue, come from the following sources:

- 1) The original amount approved in 2005:
 - \$1,250,000 - 2003 Streets Basic Capital for Clark-Knight Corridor Improvement
 - \$1,250,000 - TransLink 2002 and 2003 Minor Capital Cost Sharing
 - \$ 500,000 - Federal Border Infrastructure Fund Cost Sharing
 - \$3,000,000

- 2) Proposed additional funding sources, as outlined below:
 - a) Recoveries from outside agencies -
 - \$250,000 - TransLink 2003 Minor Capital Cost Sharing
 - \$250,000 - Insurance Corporation of British Columbia Cost Sharing
 - \$357,500 - Proposed TransLink 2008 Minor Capital Cost Sharing
 - \$857,500

 - b) 2003 Streets Capital
 - \$250,000 - 2003 Streets Basic Capital for Arterial Improvements - Unallocated
 - \$107,500 - 2003 Streets Basic Capital for Clark-Knight Improvement - Clark at 6th Left Turn Bay Anticipated Surplus
 - \$357,500

Agreements exist or are in the process of being completed for all the above recoveries from outside agencies, except for the "Proposed TransLink 2008 Minor Capital Cost Sharing". Staff plan to apply to TransLink in the Fall of this year for a total of \$357,500 in 2008 TransLink funding. Staff believe this application has a high chance of being approved, since the original project was endorsed by TransLink in 2002 and 2003, and the request is well within the City's normal block funding allocation from TransLink's Minor Capital Program. If staff are not successful in obtaining approval of this TransLink funding, that information will be reported back to Council, along with a proposed alternative funding source.

Under the proposal recommended in this report, a balance of \$357,500 would come from funding available in the 2003 Streets Basic Capital Budget. This includes \$250,000 in unallocated funding and \$107,500 from the Clark at 6th Left Turn Bay's anticipated surplus (estimated to be approximately \$550,000 after completion of construction and receipt of all confirmed recoveries).

CONCLUSION

Completion of the Knight at 49th Left Turn bay will improve safety at one of the City's highest collision locations and fulfil commitments made by the City as part of the Clark-Knight Corridor Plan. Although the estimated cost for the construction of this project has risen to \$4.215M due to increases in property costs and construction prices, recoveries from outside agencies for this project are also higher than originally anticipated - staff anticipate that the cost increase to the City can be covered by reallocating \$357,500 in funding from the 2003 Streets Capital Budget.

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