Alberta Transportation
Re-engineering and Outsourcing at Alberta Transportation
1995 – 2001

Summary of Observations

November, 2001

Prepared for:

Alberta Transportation
Edmonton, Alberta

Prepared by:

Bob Treidler, CMC
KPMG LLP

Table of Contents

Introduction to the Summary Report

Background

KPMG LLP (KPMG) has been engaged by Alberta Transportation (the Department) to develop a report which summarizes certain studies that have been performed in the period since the re-engineering and outsourcing initiatives within the Department. Consequently, this summary includes observations and assertions related to financial information accumulated over the time period from in fiscal 1996 to fiscal 2001. In addition, an estimation of potential future financial outcomes is provided based on projections relating to the maintenance of the provincial highway system.

Objective of the Summary Report

The objective of the summary report is to accumulate financial information that will allow for an estimate of the benefits from the Department's many initiatives in achieving cost savings and cost reductions first initiated in fiscal 1996 (the "1996 reorganization"). Certain studies have been undertaken to identify potential or estimated cost savings across a variety of Department initiatives. However, to date, there has not been an amalgamation of these results to summarize the impact of the Department's initiatives over the past several years. This summary endeavors to bring the available information into one document, and compares the cost of delivering the various programs using the new, outsourced and re-engineered model, to the base line cost of delivering equivalent programs using the pre 1996 in-house delivery models.

The studies accumulated in this summary report are:

- "Outsourcing of the Maintenance of Primary Highways – Financial and Other Impacts, Final Phase Two Report", KPMG Management Consulting, February, 1997.
- "Review of the Provincial Highway Maintenance Re-Tendering Process – Comparing 1995/96 to 2001", KPMG LLP, June, 2001.
- "Comparison of the Primary Highway Construction and Rehabilitation, Consulting and Internal Services Costs between 1994/95 and 1998/99 through 2000/01", KPMG LLP, August, 2001.

Overall Observations and Estimated Cost Savings

The Department has realized cost savings during the period including fiscal 1997 to fiscal 2001 as a result of a combination of initiatives including:

- The re-engineering and restructuring of the Department;
- The outsourcing of design and engineering construction services for the primary highway network; and,
- The outsourcing and re-tendering of provincial highway maintenance contracts.

Our findings are as summarized below:

Initiative	**Average Annual Savings**
Re-engineering the Department and outsourcing the engineering functions	$21.7M (page 6)
Outsourcing highway maintenance	$3.0M (page 3)
Total average annual savings (1998-2001)	* $24.7M
Anticipated re-engineering and re-tendering maintenance contract savings (2002)	$24.0M (page 4)
Total potential annual savings	$48.7M

(* assuming the level of construction activity in 2002 is similar in magnitude to the average construction level from 1999 – 2001).

In addition to the above potential savings, other government departments are realizing net savings (or additional revenues) in an amount approximating $4.5M per annum, as a result of the Department's re-organization, primarily through reduction in interest expense and grants.

Also, in fiscal 1997 the Department received additional proceeds of $46M from the sale of its highway maintenance equipment, and is currently well advanced in the sale of all its maintenance facilities and yards, which are expected to generate a further $33M in proceeds. To Oct 31 2001, $68M has been generated from the sale of these assets. The total anticipated amount is $79M ($46M plus $33M).

Since the savings (apart from asset dispositions and other department savings) have been identified as a percentage of total construction cost (the "savings ratio"), it is reasonable to apply that savings ratio to future year total construction cost to estimate total future savings. Consequently it is not unreasonable to conclude that the total impact of the 1996 re-organization, and the subsequent process improvements implemented to date, have resulted in potential overall annual savings of $48.7M within the Department, plus a further $4.5M a year in other departments, for a total annual savings to Government of Alberta of $53.2M a year. It should be noted that the new organization, with substantial outsourced (variable cost) components, is more flexible in reducing costs should budget allocations decline. The Department can reduce the amount of services it purchases in line with its budget requirements with the risk of overstaffing being borne by its contractors.

Please note that the report deals only with the financial impact these changes have had on the cost of delivering programs associated with the Primary Highway Network, and does not take into account any of the affects of the recent transfer of the Secondary Highway System, and certain primary highways through cities, to the Department. In 1999, the Department assumed responsibility for secondary highways, and certain primary highways through cities. This transfer of responsibilities will be completed by the end of December 2001. As the transfer has not been completed in total, and since this review did not include a comparison of costs before and after, outcomes from this initiative are not included in the above summary. Therefore, the above estimated savings, and total revenue generated from the 1996 re-organization, are as a direct result of changes made to the delivery process on the rural primary highway system only. (Any additional savings that will accrue as a result of the transfer of responsibility for the secondary highways, and certain primary highways are not included in any of the above figures).

Studies Included in the Summary Report

A. “Outsourcing of the Maintenance of Primary Highways – Financial and Other Impacts, Final Phase Two Report” (KPMG Management Consulting, February 1997)

“A conservative estimate of the magnitude of the savings attributed to maintenance outsourcing shows a reduction in indirect overhead costs of $3.0 million between fiscal 1996 and fiscal 1998. This is based on an internal survey and management estimates.

The $3.0 million reduction in ongoing indirect overhead costs represents 3% of total primary highway maintenance expenditure in the 1998 fiscal year. If that 3% cost reduction were applied to subsequent years, the cost savings that could have been realized would be in the magnitude of $8.9 million.

Year	Total Primary Highway Maintenance Expenditure	Cost Reduction %	Potential Cost Reduction
1998/99	$92,546,000	3%	$2.8 million
1999/00	$95,688,000	3%	$2.9 million
2000/01	$105,492,000	3%	$3.2 million
Total Potential Cost Reduction 1998/99 – 2000/01			**$8.9 million**

In summary, over the three years fiscal 1999 to fiscal 2001, the average annual savings due to maintenance outsourcing was $3.0M.

In the 1997, KPMG Management Consulting report, “Outsourcing of the Maintenance of Primary Highways – Financial and Other Impacts,” additional cost savings in other provincial departments were estimated to be in the order of $4.5 million, based on cost savings identified in Alberta Treasury, Alberta Public Works Supply and Services and Municipal Affairs. In addition to these annual savings, the Department of Transportation also received over $46M in proceeds from the sale of its highway maintenance equipment assets (such as snow plough trucks, graders, loaders, tools, trucks etc).

B. “Review of the Provincial Highway Maintenance Re-Tendering Process – Comparing 1995/96 to 2000/2001” (KPMG LLP, June 2001)

Based on an independent and objective review of the Alberta Transportation’s highway maintenance re-tendering program, KPMG LLP (“KMPG”) made following comments.

1. The measure employed by the Department (cost per kilometer) is a common and standard measure used in other provincial jurisdictions in Canada. Overall, the contract cost per kilometer to maintain provincial highways in the re-tendered Contract Maintenance Areas (CMA), declined by 28% from the average actual expenditure in 1998, 1999 and 2000 to the 2000 contracts. It was indicated that the cost per kilometer reductions are the result of several factors including: re-engineering the maintenance contracting and tendering process; the economies of scale derived from the inclusion of secondary highways; four years of actual experience for both the contractors and the Department; and the level of participation that contractors have had in the re-engineering process.

    - Based on KPMG’s calculations in comparing the 2000 contracts to the average actual expenditure for 1998, 1999 and 2000 in terms of cost per kilometer, the re-tendering program has resulted in a reduction in cost per kilometer of approximately 28%. Average cost per kilometer was $5,117 in 1998, 1999, 2000 (actual) and $3,705 in 2000. Based on the reduction in cost per kilometer and the 8,887 kilometers in the re-tendered CMA’s, the total potential cost reduction for the re-tendered CMA’s is $12.5 million. (Appendix A: Key Calculations).
    - Given a similar approach to re-tendering the remaining 13 CMA’s, and a similar outcome in terms of cost per kilometer reductions as was identified in the 17 in-scope CMA’s, it is possible to estimate the total potential savings for the remaining 13 CMA’s. A straight line projection of potential reductions in cost per kilometer yields a total potential cost reduction over the 13 CMA’s of $9.9 million.
    - During the course of the review, the Department determined that it was important to include the Deerfoot Trail contract in this analysis. The Department has indicated that the Deerfoot Trail is not considered a CMA and therefore it is not assessed on a cost per kilometer basis. However, like the 30 CMA’s, it is contracted highway maintenance. The contract for the Deerfoot Trail was re-tendered in March of 2001 with the addition of the Deerfoot Trail South extension. The total contract costs in the previous contract were approximately $4.9 million. The re-tendered contract with the extended scope (south extension), is approximately $3.3 million. The anticipated cost savings from the re-tendering of the Deerfoot Trail contract is approximately $1.6 million.

Overall, the potential cost reduction from the above three points (actual re-tendered 17 CMA’s, extrapolation of the remaining 13 CMA’s, and actual re-tendered Deerfoot Trail) is $24.0 million.

The secondary highways, and certain primary highways through cities (which were previously the responsibility of other jurisdictions) were included in the re-tendered maintenance contracts, thereby substantially increasing the size of the network included in each contract. This economy of scale resulted in a reduced overall cost per kilometer for highway maintenance for the whole network (both primary and secondary highways), but the above savings were calculated for the rural primary system only (as the costs of maintaining the secondary network and certain primary highways through cities were not known, and are outside the scope of this study). Therefore, it should be noted that the above savings are those that accrue from the rural primary network only, and do not take account of any potential additional savings that may accrue as a result of the recent decision to transfer responsibility for the secondary and certain urban primary highways to the Department.

In addition to these annual savings, the Government of Alberta (Alberta Infrastructure) is well into the process of selling all the maintenance equipment, facilities and yards. In fiscal 1997 Transportation received additional proceeds of $46M from the sale of its highway maintenance equipment, and is currently well advanced in the sale of all its maintenance facilities and yards, which are expected to generate a further $33M in proceeds. To Oct 31 2001, $68M has been generated from the sale of these assets ($46M in equipment proceeds and $22M in facilities and yards proceeds - 73 of a total of 124 facilities sold). The total amount expected to be generated is $79M.

C. "Comparison of the Primary Highway Construction and Rehabilitation, Consulting and Internal Services Costs between 1994/95 and 1998/99 through 2000/01" (KPMG LLP, August 2001)

Based on an independent and objective review of the engineering services re-engineering and outsourcing program, KPMG LLP ("KPMG") made the following comments:

1. The ratio used by the Department – consulting and internal services costs compared to total construction costs – for primary highway construction is an appropriate metric. The ratios for the baseline year and the three most recent years (fiscal 1999, 2000, and 2001) can be seen in the Table below:

($ 000's)

Costs	1994/95	1998/99	1999/00	2000/01	Average(B)
Construction	$118,295	$191,347	$198,105	$318,798	$236,083
Consulting	$29,935(A)	$31,881	$29,932	$52,439	$38,084
Internal	$13,577	$18,485	$19,746	$26,187	$21,473
Total	$43,512	$50,366	$49,678	$78,626	$59,557
Consulting to Construction	25.3%	16.7%	15.1%	16.4%	16.1%
Internal to Construction	11.5%	9.7%	10.0%	8.2%	9.1%
Consulting and Internal to Construction	36.8%	26.4%	25.1%	24.6%	25.2%

(A) Represents the internal costs associated with the activities that are currently outsourced, i.e. in-house engineering services – planning, design and construction administration.

(B) Average of 1998/99 – 2000/01.

2. Based on the information provided by the Department and the procedures followed, it is possible to estimate the cost savings accrued to the Department in comparing the baseline year to the three most recent fiscal years (1999, 2000, 2001).

   - Accordingly, it is not unreasonable to estimate the cost savings over the three year comparison period (1999, 2000, 2001) to be in the range of $65,000,000. However, after a discussion with senior Department officials, it seems probable that in the absence of an outsourced delivery system and re-engineered internal processes, the prior Department of Alberta Transportation and Utilities (ATU) would not have been able to accommodate such rapid expansion in the size of its program. But had it been required to do so, and had it used its staffing principles and processes that existed at that time to deliver such a rapidly expanded program, it is not unreasonable to estimate that it would have cost $65 million more over the three years than was the case under the present situation. In addition, the cost of scaling down such an organization to accommodate reduced demands, should that situation arise in the future, would be significantly more than is the case with the present more flexible delivery system.

($ 000's)

Costs	1994/95	1998/99	1999/00	2000/01
Construction	$118,295	$191,347	$198,105	$318,798
Consulting to Construction	25.3%	16.7%	15.1%	16.4%
Actual Consulting (I)	$29,935(A)	$31,881	$29,932	$52,439
Apply baseline year consulting ratio (i.e 25.3%) to 3 comparison years total construction costs (II)	-	$48,411	$50,121	$80,656
(II) – (I) = estimated cost savings	-	**$16,456**	**$20,207**	**$28,373**
Total estimated cost savings				**$65,036**

(A) Represents the internal costs associated with the activities that are currently outsourced.

In summary, over the three years 1999 to 2001, the average annual savings due to re-engineering and outsourcing the engineering functions was $21.7M.

Restriction on Use

This report is intended solely for the use of the Government of Alberta, Department of Transportation ("the Department"). To the extent that certain of the data used in the report has been provided by Department officials, KPMG LLP have reviewed this data, and have either verified its accuracy with reference to independent sources or have performed sufficient reasonableness checks and is confident that the conclusions drawn from this data are reasonable. However, KPMG LLP asks that the report be restricted to the Department and that if the Department wishes to share the report with parties outside the Department, those parties should not necessarily rely on the accuracy of the data contained therein.