



# Project Report: Achieving Value for Money for the Sierra Yoyo Desan Resource Road Upgrade Project

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partnerships  
British Columbia

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## Introduction

As part of its commitment to public accountability, the Province releases a project report, demonstrating how value for money has been achieved for each major public private partnership agreement it enters on behalf of British Columbians. Value for money is a broad term that captures both quantitative factors, such as finances, and qualitative factors, such as service quality and public interest.

Value for money is one of six key principles guiding public sector capital asset management in British Columbia. The others are:

- ▶ sound fiscal and risk management
- ▶ strong accountability in a flexible and streamlined process
- ▶ emphasis on service delivery
- ▶ serving the public interest, and
- ▶ competition and transparency.

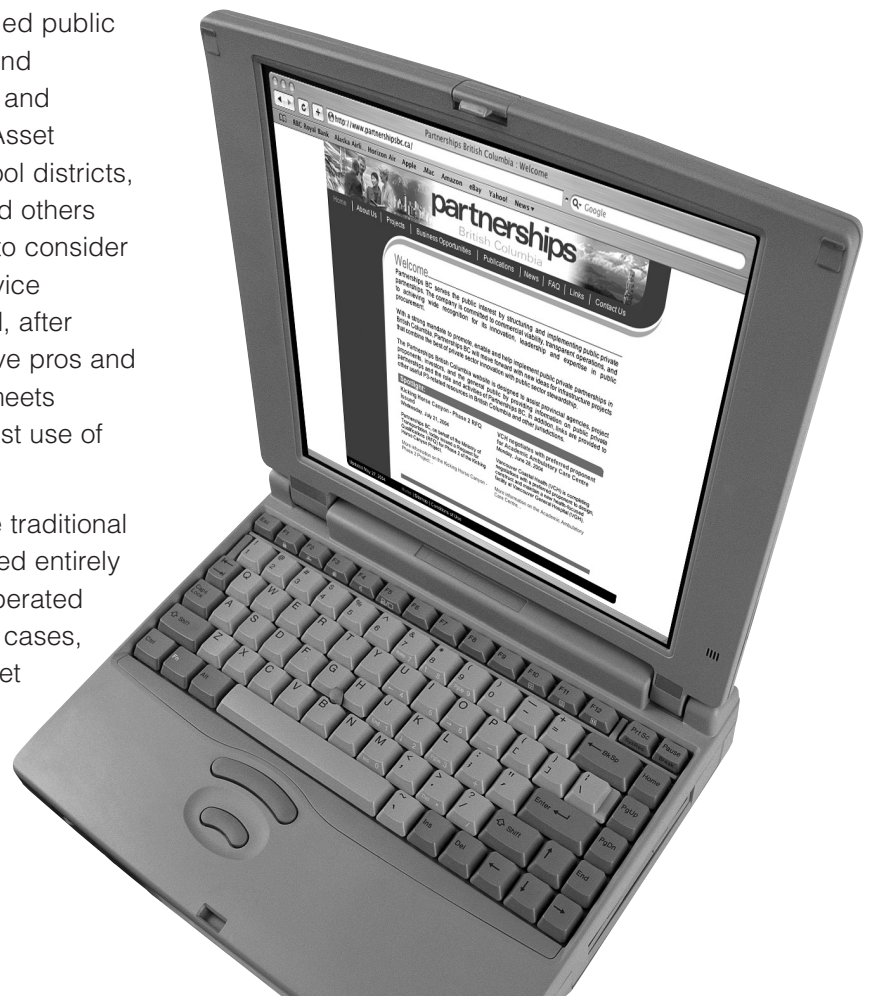
Since 2002, these principles have guided public sector agencies' approach to acquiring and managing assets such as schools, roads and health-care facilities. Under the Capital Asset Management Framework, ministries, school districts, health authorities, Crown corporations and others leading capital projects are encouraged to consider all available options for meeting their service objectives. They analyze the options and, after considering the qualitative and quantitative pros and cons of each, choose the one that best meets service delivery needs and makes the best use of taxpayers' dollars.

In some cases, the best option may be traditional procurement – where assets are purchased entirely with taxpayers' money or debt and are operated exclusively by the public sector. In other cases, agencies may find innovative ways to meet their service needs without acquiring capital assets. In these instances, agencies are publicly accountable through regular budgeting, auditing and reporting processes.

In the case of major public private partnership agreements, the Province is committed to a high standard of public disclosure to ensure accountability. This value for money report describes the rationale, objectives, and processes that led to the partnership, giving the public a clear sense of how and why the decision was reached to proceed with that option. It explains how value for money was measured and how it was achieved for this specific project. Where applicable, it also compares key aspects of the final agreement to other options considered for the project.

For more on the Province's Capital Asset Management Framework, go to <http://www.fin.gov.bc.ca/tbs/camf.htm>

For more on public private partnerships in B.C., go to [www.partnershipsbcc.ca](http://www.partnershipsbcc.ca)



## Highlights

The Sierra Yoyo Desan (SYD) Resource Road Upgrade is part of the Province's Oil and Gas Development Strategy, led by the Ministry of Energy and Mines. The capital cost of the road upgrades is estimated at \$40 million. Over the term of the agreement, the overall project – including design, construction, operations, maintenance and risk transfer – is valued at \$60 million in present value dollars.

### Value for Money

The project demonstrates value for money for B.C. taxpayers by:

- ▶ improving and maintaining the primary route into B.C.'s northeast oil and gas fields, facilitating a one-time, but sustained increase in annual oil and gas royalties paid to the Province of B.C. of approximately \$50 million to \$60 million;
- ▶ completing the necessary road improvements at no direct cost to taxpayers. Payments in the range of \$8 to \$9 million per year will be borne by industrial road users and offset by royalty rebates totaling 50 per cent of these fees and levies, or approximately \$4.25 million per year;
- ▶ protecting B.C. taxpayers from project risks such as cost overruns because the private partner assumes most of these project-related risks;
- ▶ helping to create jobs and increase economic activity in the Northeast;
- ▶ maintaining free and open public access to the road, and equitable access for industrial users;
- ▶ tying payments to performance levels; the private partner must meet agreed-upon standards before it is paid for improvements and maintenance.

The Table below illustrates how the SYD partnership agreement offers clear advantages over the other available options in terms of meeting the Province's critical project and procurement objectives.

Critical Project and Procurement Objectives	Private Sector Delivery	Public Sector Delivery	Final Partnership Agreement
Deliver an improved, safe road with the desired characteristics	✓	✓	✓
Minimize costs to taxpayers	✓		✓
Minimize risk to taxpayers	✓		✓
Maintain support from, and effective participation in decision making by, industrial road users			✓
Ensure continued free public access to the road		✓	✓

### The SYD Road Upgrade

- ▶ The 180-kilometre SYD Road is located near Fort Nelson. In the past, this road was not developed to the standards required by the oil and gas industry due to fractured ownership and inconsistent maintenance. As a result, growth in resource activity was hindered, costing the Province up to \$25 million a year in foregone royalty revenues.
- ▶ Recognizing their shared interests in the oil and gas sector, the ministry and industrial users agreed on the need for a long-term strategy to upgrade the road and provide regular, year-round maintenance. They developed a partnership to support the industry's growth and to: ensure continued public access, maintain equitable industrial access, and minimize costs to both the public and private sectors.

- ▶ Oil and gas companies using the improved SYD Road are expected to contribute up to \$275 million to \$300 million to provincial royalty revenues in 2004/2005 alone, supporting priority programs such as health care and education. In its current condition, however, the unimproved SYD road cannot support this higher level of economic activity.
- ▶ Ledcor is a BC-based company with more than 50 years of experience building and maintaining roads. Ledcor will assume most of the risks in the project, including construction risks such as potential cost overruns.
- ▶ The Province will offset road users' costs through a royalty rebate, equal to 50 per cent of users' total fees and levies. That means the project will be completed at no direct cost to taxpayers. The cost of rebates will be more than offset by increased royalty revenues because the improved road will enable an increase in oil and gas activity.

### The SYD Road Project Objectives

- ▶ Deliver an improved road that supports all season oil and gas activity.
- ▶ Provide operation and maintenance to ensure the road can support required loads.
- ▶ Improve road safety.
- ▶ Maintain involvement and support of road users.
- ▶ Respect the interests of the local community and Fort Nelson First Nation.
- ▶ Maintain free public access to the road.
- ▶ Ensure affordability for taxpayers.

### The public private partnership agreement

- ▶ Under the SYD Road partnership, Ledcor Projects Inc. ("Ledcor") will invest approximately \$40 million in the first two years to upgrade and improve the road, and another estimated \$2.5 million a year to maintain the road for another 14 years.
- ▶ In return, Ledcor will receive an annual payment benchmarked at approximately \$8 million to be paid entirely through fees collected from industrial road users based on their assets and activities in the area. General public access will continue to be free.
- ▶ Ledcor's payments will be tied to performance in two specific areas: availability of a good, usable road to standards specified in the partnership agreement; and operations and maintenance, also consistent with standards specified in the agreement to ensure a safe, year-round road.



Before

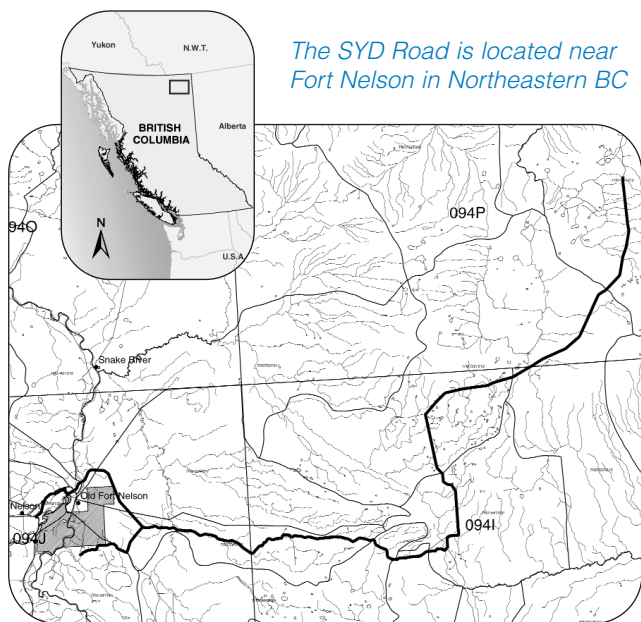


After

# 1. Project Background, Rationale and Objectives

## Background

The SYD Resource Road is a 180-kilometre route running east and north of Fort Nelson, providing primary access to over 27,000 square kilometres of oil and gas exploration territory. It currently starts 15 kilometres from the Alaska Highway at the end of Clarke Lake Road, southeast of Fort Nelson, and extends through rugged terrain and muskeg to the Helmet Airstrip.



The road is used almost exclusively by oil and gas, forestry and pipeline companies. Prior to 1998, it consisted of various fragments, under the control of a variety of owners including oil and gas companies, the Ministry of Transportation and the Ministry of Energy and Mines. Without improvements and sufficient maintenance, the roadbed deteriorated under the stress of heavy equipment and adverse weather conditions that frequently made the road inaccessible.

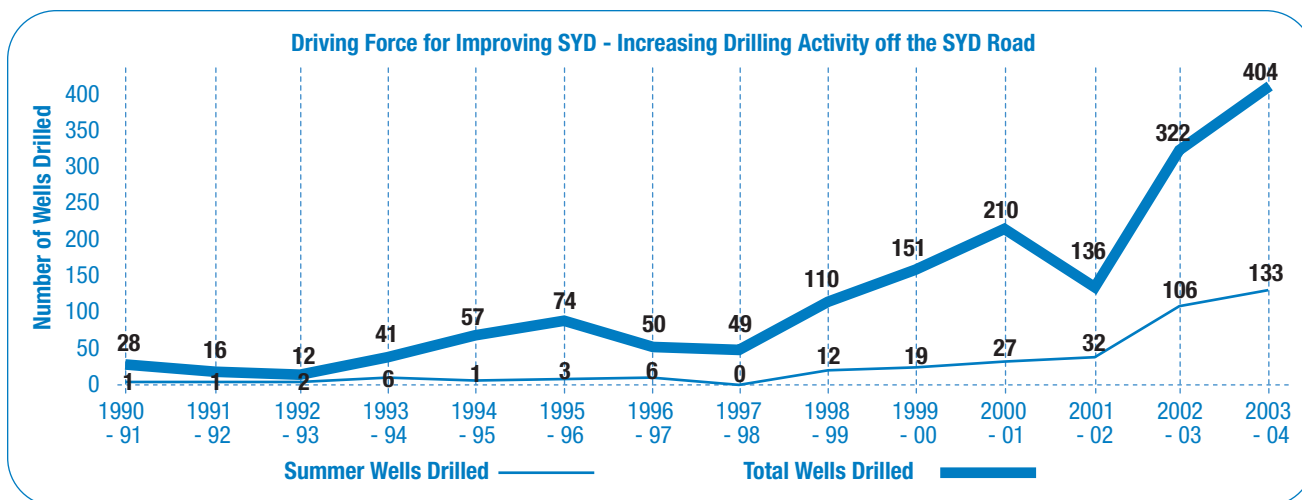
In 1998, the SYD Road was consolidated as a public roadway, under the ownership of the B.C. Transportation Financing Authority (BCTFA). Upgrading and maintenance work was done by a private contractor and financed through a system of fees and levies charged to the road's industrial users. The fees were applied to active and inactive oil and gas wells and to certain types of oil and gas activities, such as drilling and rig moves. A small amount was also paid by forestry companies, based on the volume of harvested timber hauled on the SYD Road. General public access has always been free.

## Project rationale

The oil and gas sector is one of the leading contributors to B.C.'s economic growth, and most activity is in the Northeast, including in the region accessed by the SYD Road. Exploration in the area has increased dramatically in recent years, attributable in part to the Province of B.C.'s Oil and Gas Development Strategy for the Heartlands, which is working to make B.C. the most competitive oil and gas jurisdiction in North America.

Between 1993 and 1997, about 50 wells a year were drilled in the area – mostly in the winter when frozen ground (of the SYD road and the oil and gas leases) better withstands the weight of heavy equipment. Adaptation of drilling-mat technology developed in the southern United States to allow drilling in swamp lands has created the opportunity for year-round drilling activities in the areas accessed from the SYD road. In addition, new shallow drilling technologies and new royalty incentives have created an opportunity to greatly expand oil and gas resource development opportunities in areas accessed from the SYD road. The existing condition of the road is a barrier both to realizing current activity and to future opportunities.

In 2004, more than 130 wells were expected to have been drilled in the summer season, and the year-round total is expected to reach about 400 –



eight times the level of activity recorded in the mid-1990s, as illustrated in the Table above. Winter traffic on the road can be up to 900 vehicles per day. Royalty revenues from the area (fees paid by industry to government for extracting resources from Crown land) are expected to increase to about \$275 million to \$300 million in 2005.

The increase in drilling activity noted in Table 1 cannot be sustained without improvements to the road. With improvements, however, the new SYD Road is expected to catalyze a one-time, but sustained increase, in annual royalty revenues of about \$50 million to \$60 million over the life of the partnership arrangement.

The upgrade also addresses the serious safety and other concerns raised by users. Specifically:

- ▶ the road is not available in all seasons, and this restricts access and limits the potential for further growth in summer exploration and development;
- ▶ the road's condition restricts access from the Alaska Highway;
- ▶ the surface condition is poor, damaging vehicles and increasing costs to industrial users;
- ▶ many sections are too narrow to safely accommodate industrial traffic, such as oil and gas rigs;
- ▶ many sections are unsafe, bridges need repair and users have identified a number of hazards, such as steep switchbacks and deteriorating road conditions.

Even at the lower levels of activity recorded in the 1990s, the Province has forgone an estimated \$25 million a year in royalty revenues because of the road's poor condition. Further deterioration of the road would lead to even greater losses.

### Project Objectives

The upgrade of the SYD resource road, using a public-private partnership model, is designed to achieve the following objectives:

- ▶ deliver an improved, gravel-surfaced resource road to promote all-season oil and gas activity and generate economic growth as part of the Province's Oil and Gas Development Strategy. The road will have the following features:
  - a direct connection to the town of Fort Nelson at the end of Airport Drive, which means building a new, 22-kilometre bypass and a new major bridge across the Fort Nelson River; the bypass will move heavy industrial traffic from provincial highways onto the SYD road;
  - widening and surface improvements to the SYD Road beyond kilometre 30.5 to the Yoyo Tee (at about kilometre 121);
  - replacement of, or upgrades to, some of the existing bridges on the road, notably the bridge across the Snake River and the two Petrocan bridges;

- ▶ provide ongoing operation and maintenance to a standard that ensures the road can continue carrying specified legal axle loads, safely, at prescribed speeds;
- ▶ improve road safety by improving sight lines at sharp turns and improving the quality of the road surface;
- ▶ maintain involvement and support of road users, including their willingness to pay the cost of upgrades and improvements;
- ▶ respect the interests of the local community and the Fort Nelson First Nation;
- ▶ maintain open public access to the road, at no charge;
- ▶ ensure affordability for taxpayers.

## Procurement Options

The Ministry of Energy and Mines examined three options for meeting the project objectives. Each of these options assumes a user-pay approach that had already been established for this road.

- ▶ Private sector delivery: Identify one or more private companies to upgrade and maintain the road. These companies already design, build, finance and operate resource access roads. If the SYD Road were operated on this basis, the company, or companies, responsible could charge other companies for using the road and the road would be entirely privately managed and operated.
- ▶ Public sector delivery: Undertake to design, build, finance and operate the road through a public sector agency, perhaps through a long-term contract with the Ministry of Transportation and the B.C. Transportation Financing Authority. It is important to note, however, that management of resource roads is not a core business of the provincial government and this option would require the establishment of a new program to manage these types of roads.

- ▶ Public private partnership delivery: Have a private partner finance, design and build the upgrades and maintain the road, under a long-term contract with the Province, with the partner compensated on the basis of performance payments.

## Options Assessment

Under the Province's Capital Asset Management Framework, public agencies assess potential options based on both their qualitative and quantitative factors. In some cases, quantitative factors are compared through the use of a public sector comparator (PSC). A PSC is a risk-adjusted estimate of overall project costs in today's dollars, if the project were delivered wholly by the public sector.

In this case, a PSC was not developed because development of this resource road is not the mandate of the provincial government. Instead, the options assessment focused on how well the various alternatives would meet the project objectives. Their pros and cons are summarized in the discussion that follows.

- ▶ Private sector delivery would have been based on a structure referred to as a Petroleum Development Road (PDR). PDRs are not public highways under the Highway Act. Accordingly, provisions of the Highway Act and Motor Vehicle Act concerning traffic control and vehicle and driver licensing and insurance requirements do not apply.

This option would have had the lowest cost for taxpayers because road improvements and maintenance would have been funded entirely by the private sector with no oversight or involvement of the Province. This option would also have raised serious public interest issues, however, including questions about public access and control since it would no longer be a public roadway. This option was also deemed to be unacceptable to road users because they were concerned that this option might not ensure equal, unfettered access for all categories of road



users, since only one or a small group of companies would have control of access, road usage, maintenance and fee decisions.

- ▶ Public sector delivery would have addressed public interest and access issues. However, it would have faced significant challenges.

First, there is no public sector entity whose core business includes building, operating and maintaining oil and gas resource roads. As such, a new program would have had to be established to oversee the project and coordinate requirements with road users. This would have added considerably to costs, and would have extended the time required to achieve the project objectives. Second, road users had concerns that public sector delivery would undermine their ongoing need for influence over road usage, improvements and associated costs for which they pay. Third, in a public sector model, taxpayers would have shouldered almost all the costs and risks. This would be inconsistent with the project objectives. Given the lack of experience of government in managing these types of roads, it is reasonable to assume that additional uncertainty and risks may have also resulted. Given the costs, risks and uncertainties associated with this option, the ministry chose not to pursue it further.

- ▶ Public private partnership delivery allowed for the work to be completed at no direct cost to taxpayers. It also offered advantages in areas such as risk transfer, continuing public access and securing private investment. This option faced no major impediments, was supported by the neighbouring community of Fort Nelson and allowed for continued free public access to the road and provincial control of public interest issues such as driver licensing and traffic control. It allowed the public and private sectors to continue to operate the road jointly, enhancing the model developed in 1998. This option also reflected the preferences and objectives of industrial users whose fee and levy payments will

cover the cost of the upgrades, operations and maintenance. Industrial users achieve operating cost efficiencies on the improved road and better access to their investments. At the same time, the Province of B.C. capitalizes on producers' ability to increase the production of oil and gas in the area through increased royalty payments

## **Benefits of the Preferred Option (Partnership)**

The partnership delivery option meets the Province's critical project and procurement objectives, including stimulating economic growth and minimizing costs and risks to taxpayers while ensuring that the road would continue to be available to the public.

Project-specific benefits:

- ▶ the work is done by a company, chosen through a competitive selection process, with specific expertise in building, operating and maintaining resource roads (whereas resource roads are not part of the Province's core business);
- ▶ the private partner is paid through fees and levies from road users; the Province's only financial contribution is an annual royalty rebate to road users, equal to 50 per cent of their road-use fees and levies; and
- ▶ road users continue to have a role in setting road management priorities.

In addition, it has the characteristics of a strong, viable public private partnership, including:

- ▶ private, rather than public sector investment at risk in the project;
- ▶ transferring risk to the private sector partner for the elements of the deal under its control, such as construction, maintenance and operation costs;
- ▶ the private partner stands to lose money if it fails to achieve performance targets;
- ▶ appropriate incentives for early completion of the upgrades and for appropriate maintenance in the long-term; and
- ▶ public control of key public policy issues; the SYD Road remains a publicly accessible road.

## 2. Competitive Selection Process

Ledcor was chosen through a fair, transparent, open and competitive selection process, consistent with provincial practices and policies. All procurement documents are publicly available at <http://www.partnershipsbc.ca>

In addition to project objectives, the following objectives were established for the competitive selection process:

- ▶ build the best possible bypass and bridge and achieve the best and most road improvements, and meet safety requirements, at the least cost;
- ▶ obtain the best ongoing maintenance at the least cost;
- ▶ optimally allocate risks to the parties that can best control them;
- ▶ provide a contractual structure which road users will support and which will allow them to participate in making project scope and cost decisions;
- ▶ provide an approach that faces the fewest and most easily resolved impediments in terms of obtaining government approvals and the participation of relevant agencies;
- ▶ ensure that selection processes are fair, timely and competitive.



*Clearing the SYD bypass*

*April 2004 - SYD new bypass grade preparation*



### Project Team

A project team led by the Ministry of Energy and Mines (MEM) was established to manage this project, develop a competitive selection process, write procurement documents, establish evaluation criteria and performance measures, and evaluate proposals from the private sector.

Other members of the project team included the following advisors:

- ▶ Partnerships BC, which advised the ministry on the business transaction and worked with the project team to manage the procurement process;
- ▶ KPMG, which served as the business and financial advisor to the project team, providing financial modeling, cost analysis and risk analysis;
- ▶ Fraser Milner Casgrain, which provided legal counsel to the project team and managed the drafting of the agreement;
- ▶ N.D. Lea, retained by MEM to provide technical advice to the project team, such as developing the evaluation framework and conducting the evaluations.

### Detailed Process

The procurement followed a four-stage process:

Stage 1 – Registration of Interest: this stage was designed to identify companies that may have an interest in the project. Participation in this step was not a requirement for participation in the rest of the process.

Stage 2 – Request for Qualifications: at this stage, potential proponents formed teams and submitted proposals that demonstrated their experience and capabilities, including financial capacity, to carry out the work to required specifications. Based on a set of pre-determined evaluation criteria, a shortlist of qualified proponent teams was then selected to receive the Request for Proposals.

Stage 3 – Request for Proposals: at this stage, the shortlisted proponent teams submitted detailed proposals for meeting project objectives. The proposals were evaluated, based on pre-determined criteria, and a preferred proponent identified.

Stage 4 – Negotiations: at this stage, the project team negotiated with the selected preferred proponent with a view to reaching a final agreement.

## Competitive Selection Timetable

Registration of Interest Issued	June 27, 2003
Request for Qualifications Issued	July 18, 2003
Request for Proposals Issued	September 29, 2003
Request for Proposals Closed	November 14, 2003
Preferred Proponent Selected	December 15, 2003
Concession Agreement Negotiated with Preferred Proponent and Lenders Direct Agreement Negotiated with Lenders	January 2004 to June 2004
Agreement Signed (Contractual Close)	June 21, 2004

## Competitive Selection Results

The SYD road project was the subject of a vigorous competition, which saw more than 20 firms register their interest. Five teams competed on the basis of their qualifications and the short-listed three submitted proposals that demonstrated their design, construction, and operations and maintenance abilities, and included their best financial offers.

### Summary

Stage	Number of respondents
ROI (interested parties)	21
RFQ	5
RFP(invited to submit)	3
Proposals received	3
Preferred proponent	1

## ROI Stage

The Registration of Interest (ROI) was advertised in the *Vancouver Sun*, the *Vancouver Province*, the *Alaska Highway News*, the *Fort Nelson News*, the *Prince George Citizen* and the *Journal of Commerce*. It was also posted on BC Bid and the Partnerships BC website, and posted to all businesses registered with Partnerships BC's online Business Directory.

Twenty-one potential proponents, representing constructors, engineering firms and financial firms from B.C., Canada and internationally, responded to the ROI.

## RFQ Stage

The Request for Qualifications (RFQ) was advertised in the *Vancouver Sun*, the *Vancouver Province*, the *Alaska Highway News*, the *Fort Nelson News*, the *Prince George Citizen*, the *Journal of Commerce* and the *Calgary Herald*. It was also posted on BC Bid, the Partnerships BC website, and posted to all businesses registered with Partnerships BC's online Business Directory. In addition, the ROI respondents received a copy of the RFQ directly.

Five proponent teams responded to the RFQ. The proponent teams were made up of more than half of the original 21 firms that expressed interest. The evaluation criteria at this stage were categorized into four components in order to assess the proponent teams' qualifications in these areas:

- ▶ construction;
- ▶ road operations and maintenance;
- ▶ technical;
- ▶ financing.

The evaluation team selected three qualified teams from the five proposals submitted. The shortlisted firms were:

Shortlisted Proponents	Proponent Team Members
Ledcor Group	Ledcor Projects, McElhanney Consulting Services, Buckland & Taylor, Trow Associates, Triton Environmental Consultants
Walter/SNC-Lavalin Joint Venture	Walter Construction, SNC-Lavalin, Allnorth Consultants, Kledo Construction, Ruskin Construction, GTM Consulting, Hatfield Consultants
Emcon-Tercon	Tercon Construction, Emcon Services, Surespan Construction, Stantec Consulting, AMEC Earth and Environmental, Delcan Corporation, QR Engineering, Macquarie North American

**RFP Stage**

A Request for Proposals (RFP) and draft concession agreement (contract) were issued to the three short listed proponents on September 29, 2003. The RFP provided detailed specifications and requirements of the project. By the November 14th deadline, all three teams had submitted detailed project proposals.

**Evaluation Process and Results**

The SYD Road project team established an evaluation committee in November 2003. Chaired by MEM, the team included representatives of Canadian Natural Resources Limited, Penn West Petroleum, EnCana Corporation, Anadarko Canada Corporation, the Ministry of Transportation and Partnerships BC.

The committee’s mandate was to evaluate the detailed proposals submitted by proponents, using the criteria set out in the RFP. Those criteria pertained to four areas:

- ▶ legal and commercial;
- ▶ design and construction;
- ▶ operation and maintenance;
- ▶ financial offers.

Sub-committees were established to focus on these areas. They reviewed the proposals in detail and reported to the evaluation committee that:

- ▶ all the proposals complied with the legal and commercial criteria in the RFP;
- ▶ two of the three proposals met the criteria for design and construction criteria, operation and maintenance, and demonstrated financial capability;
- ▶ the Ledcor proposal represented a better risk-adjusted financial offer. The risk-adjusted present value cost of the upgrades, additions and services was clearly lower than that in the competing proposals.

Ledcor was, therefore, chosen as the preferred proponent.

There were no changes to the scope, cost or other key aspects of the project during the procurement process.

## Competitive Selection Costs

The ministry engaged a number of advisors to assist in the competitive selection process. The associated costs are outlined below and represent approximately three per cent of the project's net present value, which is considered typical for a project of this magnitude.

Preliminary Engineering and Cost Estimates . . . . .	\$ 50,000
Business consultants (KPMG) . . . . .	.465,000
Legal Advisors (Fraser, Milner Gasgrain) . .	.300,000
Owner's Engineer (ND Lea) . . . . .	.900,000
Partnerships BC . . . . .	.250,000
Total . . . . .	1,965,000

One of the benefits gained in this project is the ability to apply the model developed for the SYD Road to future similar resource road projects. Partnerships BC expects to apply the Best Practices gained for this project such as procurement documents, evaluation criteria and performance measures for future such projects, thereby reducing procurement costs for these projects.

### 3. The Final Agreement

#### Profile of the selected partner

Ledcor is a B.C.-based company with extensive road construction experience. The company has been building roads for the oil and gas industry since 1947 and has worked in areas such as the Northwest Territories and Northern Alberta, where conditions are similar to the region surrounding the SYD Road.

Ledcor gives preference to appropriately qualified, experienced local contractors and suppliers, helping to maximize project benefits for neighbouring communities.

The company's website for the SYD project is at [www.sydroad.com](http://www.sydroad.com). For more information on Ledcor, go to [www.ledcor.com](http://www.ledcor.com).

#### Scope and level of service

Under the public private partnership agreement, Ledcor will:

- ▶ design and build a 22-kilometre bypass, including a new bridge over the Fort Nelson River, connecting the SYD Road to Highway 97, also known as the Alaska Highway\*; this work will be complete by November 30, 2004;
- ▶ improve key sections of the road by November 2005; this will include widening some sections and addressing safety issues in others (e.g., where switchbacks exist);
- ▶ upgrade three smaller bridges known as the Snake River Bridge and Petro-Canada bridges #1 and #2;
- ▶ maintain the road to prescribed standards over 16 years; at the end of the term, the road will be returned to the Province;
- ▶ Finance the improvements, valued at approximately \$40 million;
- ▶ Receive payments from industrial road users benchmarked at \$8 million per year. The Province of B.C. makes no direct contribution to the annual payments made to Ledcor; rather, road users fees wholly finance the payments to Ledcor.



*Construction on the Snake River Bridge joint*

#### Highlights of the Agreement

Key elements of the partnership agreement with Ledcor are:

- ▶ term of concession: from June 17, 2004 to June 17, 2020;
- ▶ the road remains a public highway, owned by the Province, and leased to Ledcor for the term of the agreement;
- ▶ value of investments: The capital cost of the construction of the bypass, the Fort Nelson River Bridge, and the upgrades on the rest of the SYD, is about \$40 million. The present value of Ledcor's investments and spending on road maintenance and improvements are in the order of \$60 million;
- ▶ design and construction matters: Ledcor must build a new bypass from the end of Airport Drive in Fort Nelson to kilometer 30.5 on the existing SYD Road. The remainder of the road to the Yoyo Tee, at about kilometer 121, will be widened to 8 meters, and the road surface will be improved to a prescribed, consistent standard;
- ▶ environmental matters: Ledcor is responsible for obtaining environmental permits and respecting environment regulations as they apply to construction and road operations and maintenance;

\*The Province, through the Ministry of Transportation, designed, built and maintains the airport connector, which connects the SYD Road to the Alaska Highway.

- ▶ insurance and bonding matters: Actual insurance payments are a direct flow-through cost to road user fees. Insurance must be to a prescribed level and coverage, and the Province has the right to provide insurance;
- ▶ default and remedies: In the event Ledcor fails to maintain and keep available the road to the standards in the concession agreement, the Province has the right to impose penalties, undertake the required improvements or maintenance at the expense of Ledcor and, should the performance failure be serious and ongoing, terminate the agreement;
- ▶ contracting parties: The Province as represented by the Minister of Energy and Mines and SYD Road Limited Partnership (the general partner is Ledcor);
- ▶ termination: At the end of the agreement term the road reverts to MEM at no cost. Ledcor is required to maintain the road in good condition until that time and return it in good condition.
- ▶ termination prior to end of term: The agreement can be terminated prior to the end of its term for any one of three reasons: 1) as noted above, Ledcor defaults; 2) a delay is imposed on Ledcor or an act of force majeure (unforeseen catastrophe) keeps the road closed for at least one year; or 3) the Province defaults on its obligations under the agreement or decides for other reasons to terminate it.

If Ledcor were to default, it would receive on termination the lesser of the fair market value of the concession or outstanding debt. In either scenario, the financial amount Ledcor would receive is significantly less than the value of the asset and the value of the investment made by the private partner in the project. In other words, taxpayers would have financially gained by the work invested in the project to date.

In the case of termination due to an event that keeps the road closed for a year or more, Ledcor would receive the greater of fair market value or the value of the outstanding debt, except if that event is a force majeure (unforeseen catastrophe) in which case Ledcor would receive the greater of 95 per cent of fair market value or the amount of outstanding debt.

Finally, if the Province were to default or terminate the agreement, Ledcor would receive the greater of fair market value or the value of the outstanding debt.

The lenders agreement provides lenders with step-in rights should Ledcor default and the Province and road users give notice to terminate. The lenders agreement also sets out notice provisions and the timeframe during which the lenders have the opportunity to find a replacement for Ledcor.



*Airport Connector - Highway 97N*

## Risk Allocation

Allocating project risks to the partner best able to manage those risks is a fundamental goal of public private partnerships. Optimal risk allocation occurs where each party takes responsibility for the risks it is best able to manage. The SYD partnership agreement achieves optimal risk allocation, as illustrated below.

Type of Risk	Ledcor	Road Users	Province
Design failure: such as bridges incapable of bearing appropriate industrial loads	✓		
Construction cost overruns due to time delay or increases in the cost of materials and labour	✓		
Financing Costs: such as interest rate increases	✓		
Operations and Maintenance Costs related to the annual traffic volume	✓	✓	✓
Traffic Volume (revenue)		✓	
Environmental and Permitting processes that could lead to delays	✓		
Force Majeure (major catastrophic events)	✓ <small>(minority of risk)</small>	✓ <small>(shared with Province)</small>	✓ <small>(shared with users)</small>

Overall, the risks that are more likely to materialize relate to design, construction and maintenance. These risks rest with the private partner. Further information on the shared risks allocated to each partner is outlined below.

The Province and road users share most of the risks related to force majeure events such as earthquakes and catastrophic floods.

The Province and Ledcor share some of the risks related to operations and maintenance. For performing maintenance on the improved SYD Road and the new bridge and bypass, Ledcor will receive an annual benchmarked payment of approximately \$2.5 million but will share the cost of major variations from this benchmark. This arrangement is described in greater detail in the section titled Performance Payments (below).

## Performance Payments

Ledcor will be paid two types of fees: an availability fee for providing a good, usable road of a prescribed level of construction, and a separate fee for operations and maintenance. These are described in greater detail below.

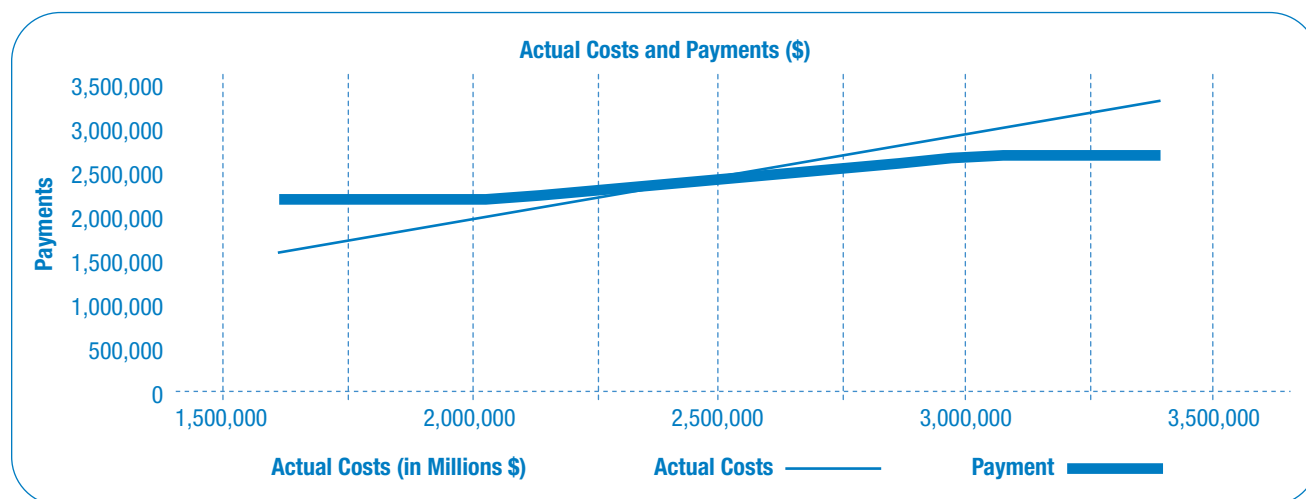
- ▶ **Availability fee**  
This will be paid in two stages. A first tier of fees will be implemented when the bridge and bypass are completed (likely by November 30, 2004). The second tier payment level will take effect only when the additional upgrades to the road are completed and will be paid monthly until the termination of the agreement. Availability fees will not be adjusted for inflation.
- ▶ **Operations and Maintenance Fee**  
This has three components: a) the base payment amount, which varies depending on actual costs; b) a payment based on the number of rig moves; and c) a road user satisfaction payment, as applicable. The payments are made on a monthly basis, but calibrated annually, based on actual costs and rig moves.



► Base Payment

The base payment starts at a baseline amount of just over \$2.5 million per year, and the payment is adjusted from this amount based on actual cost. For example, if actual annual costs are above the baseline, then Ledcor receives 50 per cent of the difference between actual and baseline costs, up to actual costs of just over \$3 million. If actual annual costs are less than the baseline, the payment to Ledcor is reduced by 50 per cent of the difference between the baseline and actual costs. Below that amount, no further payment reductions are made. Base payment fees will be adjusted for inflation.

The payment schedule and its relationship to actual costs are shown in the graph below.



► Rig move payments

These are calculated as \$1,000 for each rig move during the winter and \$3,000 during the non-winter season, and are forecast for the year. Monthly payments are based on the forecast and reconciled at year end with the amount owing for that year, based on the actual number of rig moves completed. These payments will be adjusted for inflation.

If there are more than 200 rig moves on the road in any year, or there is a fundamental change in traffic one year, then Ledcor will be paid the actual costs of operating and maintaining the road. Detailed standards to which the road must be maintained are set out in a schedule to the concession agreement. Generally, the road must be kept clear of snow and debris and have a good, gravel-covered, free-draining surface capable of carrying industrial traffic at 80 kilometers per hour.

Ledcor will be penalized according to a schedule of penalties for any shortcomings in maintenance performance.

► Road user satisfaction payments

A system is being developed to measure users' satisfaction. Based on these measures, an additional payment may be made, to the amount of 5 per cent of the total of the other two payments (above).

## Provincial Financing and Royalty Revenues

The SYD Resource Road Upgrade is being financed in such a way that taxpayers make no direct contributions. As illustrated in the Table below, the Province's contributions will be in the form of royalty rebates, equal to 50 per cent of the fees and levies paid by industrial road users, most of whom are in the oil and gas sector.

Because the upgraded road will facilitate further growth in oil and gas activity, even with the rebates, the Province expects to realize a significant net increase in royalty revenues, as outlined below. All dollar amounts are expressed in millions.

	2004/05	2005/06	2006/07	2007/08
Ledcor Investment	\$27.3 m	\$13.2 m	\$2.5 m	\$2.5 m
Royalty Rebate	\$4.25 m	\$4.25 m	\$4.25 m	\$4.25 m
Increase in Royalty Revenues (before rebate)	\$14 m	\$50 m	\$50m	\$60 m

Industrial road users' contributions will be in the form of fees and levies collected under the Build BC Act. These include a levy on wells and a fee for drilling and rig moves. Annual fees and levies are expected to be in the range of \$8 million to \$9 million.

Payments will be made to the B.C. Transportation Financing Authority and kept in a separate account, from which Ledcor will be paid. The funds will be controlled by road users and the Ministry of Energy and Mines.

## Budget and Accounting Treatment

The project team worked to develop an agreement that provides best value overall for taxpayers. Details of financial reporting such as how this agreement will impact the Provincial Budget will be determined by the Office of the Comptroller General and/or the Auditor General.

It is expected that the property and improvements will be recorded as assets on Ledcor's financial statements and will not appear on the financial statements of the Province or any of the road users. However, as stated above, this judgment is made by the Office of the Comptroller General and/or the Auditor General.

## Project timetable and milestones

### Project Timetable

Negotiation of Concession Agreement with Lead Proponent and Lenders Direct Agreement with Lenders	January 2004 to May 2004
Preliminary work begins on the bypass and Fort Nelson River bridge	January 2004
Final agreement signed	June 2004
Concessionaire assumes road maintenance responsibilities	August 1, 2004
Bypass and Fort Nelson River bridge completed	November 2004
Improvement to the rest of the SYD Road completed	November 2005
Concession agreement expires; Province resumes responsibility for road	June 2020

## 4. Outstanding issues

At the time the agreement was signed, there were three outstanding issues. These are outlined below, along with notes on the status of these issues at the time of this report's publication.

1. The Ministry of Energy and Mines (MEM) and road users must formally establish the SYD Road Users Committee, under which the partnership agreement will be jointly managed.

Status: This committee was established in June 2004 and continues to develop policies and procedures for good governance of the SYD Road.

2. The Road Users Committee will have to develop a user satisfaction measurement system. This will likely be based on a survey of users and tied to a system of performance payments, adding further incentives for Ledcor to respond to users' needs and concerns.

Status: The parameters of the incentive mechanism are expected to be in place by early 2005.

3. The Road Users Committee and Ledcor will develop a protocol which describes how issues of communication, safety, operating practices, road usage including periodic weight restrictions will be conveyed to all categories of road users.

Status: This protocol is expected to be in place by end of December 2004.

## 5. Ongoing contract monitoring

The terms of the contract (partnership agreement) will be monitored under the auspices of the SYD Road Users Committee, established jointly by road users and the Province (through the Ministry of Energy and Mines). Actual administration of the contractual terms of the agreement will rest on the following arrangements.

- ▶ MEM and the SYD Road Users Committee will rely on reports from road users (through the Road Users Committee) to assess Ledcor's performance and to be alerted if there are frequent, unreported performance failures.
- ▶ Direct responsibility for monitoring the contract and ensuring the quality of Ledcor's performance will rest with the Ministry of Energy and Mines.
- ▶ Ledcor is responsible for reporting on performance quality. If it fails to report performance failures that are the object of penalties, and the failures are found on audit, the applicable penalties will be doubled.

The costs of administering the agreement will be recovered from road user fees and levies. MEM will work with road users to determine an appropriate level of enforcement, and the level of spending and resources this enforcement activity will require.

On behalf of the SYD Road Users Committee, MEM expects to contract for an owner's engineer to provide advice on the road's state of repair and Ledcor's performance with respect to upgrades and improvements.

Visit [www.partnershipsbc.ca](http://www.partnershipsbc.ca) or [www.em.gov.bc.ca/subwebs/oilandgas/infrastructure/syd/syd.htm](http://www.em.gov.bc.ca/subwebs/oilandgas/infrastructure/syd/syd.htm) for more information and updates on this project.



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