







# BOARD OF TRADE OF METROPOLITAN MONTREAL

OCTOBER 19, 2016



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Vice President Business Development

# WHO ARE WE?

- → Founded in 1990 HQ in Montreal (Canada)
- → Our core business: all (only!) railway disciplines
  - As CANARAIL Specific heavy haul rail solutions
  - As **SYSTIA** Canada: Specific passenger rail solutions
- → Services:
  - Consulting
  - Technical Assistance
  - EPC(M)
- → A wide range of clients:
  - private sector (mining companies, contractors, operators)
  - public sector (transport authorities/agencies, governments)
  - International Donors (World Bank Group, Asian Development Bank, African DB)

US\$23.5M of work over the last 5 years





















THE WORLD BANK



# RAILWAY SPECIALISTS

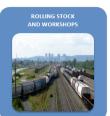
- → Offering an exhaustive service to our clients
  - At every stage of a project



Expertise for all rail disciplines

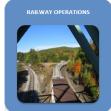


- Conceptual and preliminary design
- → Detailed engineering
- Construction supervision
- 7 Tendering services
- 7 Inspection services
- Maintenance standards and practices
- Technology assessment



- Rolling stock designed and specifications
- 7 Tendering & inspection services
- Reliability-based maintenance for locomotives
- → Workshop management
- ✓ Workshop design
- ✓ Fleet maintenance
- management systems

  ✓ Technology assessment
- Tendering and procurement services



- 7 Transportation planning for services and commodities
- Simulation
- Capacity analysis
- Yard and terminal design and operation
- Train control and dispatching systems
- Operating and safety rules
- Accident investigationsIntermodal studies



- ✓ Network & traffic studies
- Maintenance audit
- Construction supervision
- Systems AssessmentNetwork design and
- traffic forecast

  Preparation of tender documents
- 7 Technical supervision



- → Feasibility studies

  → Feasibility stu
- Economic and financial analysis and modeling
- Cost-benefit and economic impact studies
- → Profitability analysis
  → Profitability
- Project financingRail traffic costing
- Traffic and revenue forecasting
- Development of marketing expertise
   Business plan development



- Privatization and concessioning / transaction advisory
- services
  Restructuring of parastatal railways
- Manpower planning
   Regulatory, legal & policy issues
- Corporate planningFinancial modelling
- Private sector participation / private public partnership



- ☐ Technical assistance
  ☐ Management &
- operational support

  Secondment of railway
- → Environmental impact
- Social analysis and resettlement planning
- Training



- 7 Crash Energy Management (CEM)
- Locomotive design and re-engineering
- Passenger car interior design
- Rail vehicle systems design and integration
- design and integration
   Structural design and finite element analysis (FEA)
- Fibreglass Reinforced Plastic (FRP) design
- Repair and upgrade cost estimating
- Fuel consumption / TPC studies



# FEASIBILITY STUDY FOR THE NORTHERN AFGHANISTAN RAILWAY







# **DESCRIPTION OF MANDATE**

Economic and financial feasibility study including traffic, engineering, hydrological, geotechnical, environmental, social surveys, optimization, preliminary designs, cost estimates, economic and financial assessment and analysis, bidding and procurement support and institutional development support for the Northern Afghanistan Railway network.

Consultancy services providing assessment of feasible options for the construction of a 600km rail link from (i) Mazar-e-Sharif through Sheberghan and Andkhoy to Aqina, and (ii) Mazar-e-Sharif to the border with Tajikistan and (iii) links to Amu Darya Oil blocks. Provide a broad overview of possible options for rail transportation of goods and passengers on the lines under study; define forecasts of potential traffic.

Project worth over 8 million US\$ including a survey of hydrological review; geotechnical studies and detailed surveying of viable routes; identification of various technical options for the railway construction; preliminary designs; technical solution at the lowest cost, assessment of technical viability, economic feasibility and financial viability of various alternative routes; social impacts study (ERS), Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA); assist the client with the procurement process and the Government with the tendering process, institutional development and capacity improvement.

#### **CLIENT**

Ministry Of Public Works, Islamic Republic of Afghanistan

#### COUNTRY

Afghanistan

# YEAR

2014

## **DURATION**

Ongoing

#### **FUNDING**

Asian Development Bank

# **VALUE OF SERVICES** | **VALUE OF PROJECT**

US\$8 million US\$1.5 billion

#### **TYPE OF SERVICES**

→ Feasibility Study



# Dar es Salaam-Isaka-Kigali-Gitega Railway Project







## **DESCRIPTION OF MANDATE**

CANARAIL was mandated to evaluate the upgrading of the Dar Es Salaam – Isaka corridor in Tanzania and the engineering design and development of two new mainlines to Kigali, in Rwanda, and Keza/Musongati, in Burundi. Three different railway gauge alternatives (meter, cape and standard) were considered. CANARAIL was responsible for the following activities:

- Inspecting all workshops along the existing line and making recommendations regarding the upgrade and consolidation of shops based on modern rolling stock and operating practices;
- Reviewing existing technical reports completed by BNSF and CPCS;
- Reviewing and modifying the engineering design of all bridges, viaducts and culverts for the different gauge options;
- Developing technical specifications for various gauge alternatives for the upgrade of the existing railway and construction of two new railways;
- Reviewing and refining the DBI design of both new railways (to Rwanda and Burundi) to minimise earthwork volumes,
- Developing Signalling and Telecommunications system solutions and specifications;
- Developing capital cost estimates (CAPEX) and operating cost estimates (OPEX);
- Conducting environmental and social impact analyses;
- Conducting economic and financial analyses for both freight and passenger traffic on the existing line (Tanzania, 700km) and future lines (Rwanda and Burundi, 1,300km);
- Conducting institutional analysis.

## **CLIENT**

Rwanda Transport Development Agency (RTDA)

#### COUNTRY

Tanzania

#### YEAR

2012-2014

#### **DURATION**

12 months

#### **FUNDING**

African Bank for Development

#### **VALUE OF PROJECT**

US\$ 4.2 million

#### **TYPE OF SERVICES**

→ Study



# CONSULTING & INSPECTION SERVICES FOR RAILWAY BRIDGE CAPACITY RATING







## **DESCRIPTION OF MANDATE**

The mandate was to update and complete the railway bridge register to reflect the current condition of all bridges. The priority was on bridges between Dar Es Salaam and Isaka (Phase 1), followed by the ones on the Tabora to Kigoma line; bridges between Isaka and Mwanza were logged in Phase 2. CANARAIL proceeded to evaluate the load capacity of all structures, bridges, and overpasses along the central rail network and determine the rehabilitation work required to accommodate rolling stock transporting 20- and 40-foot containers between Dar es Salaam and Isaka with a 15-tonne axle load going speeds of up to 75km/h.

Phase 1 (Dar Es Salaam to Isaka line) included the following steps:

- Review infrastructure drawings provided by RAHCO,
- Update and add to the bridge and overpass register,
- Update the condition of all bridges and overpasses,
- Determine the structural capacity of all 1,549 structures based on a 15 tonne/axle ratio,
- Conduct a risk analysis with regards to the implementation contract,
- Establish a quality assurance plan,
- Prepare tender documents,
- 7 Determine the downstream work including detailed design, tender documents, and construction supervision.

The terms of Phase 2 are currently being negotiated but it will include the detailed design, purchasing assistance, and construction supervision of all infrastructure needing major rehabilitation work. At this point, 225 bridges have been identified as needing rehabilitation work.

#### CLIENT

Reli Assets Holding Company (RAHCO)

#### **COUNTRY**

Tanzania

# YEAR

2015

#### **DURATION**

Ongoing

## **FUNDING**

Asian Development Bank

#### **VALUE OF SERVICES**

\$3 million (Phase 1)

#### **TYPE OF SERVICES**

→ Railway Bridges



# FEASIBILITY STUDY & DETAILED DESIGN FOR REGIONAL COOPERATION AND INTEGRATION (RCI) PROJECT







**DESCRIPTION OF MANDATE** 

SI. No.	Project Name	Scope of TA Project
1	Construction of a railway link from Dhaka-Bhanga-Jessore through Padma Bridge in two phases: [Phase-I:	Feasibility Study Phases I&II, Detailed Design Phase-I
	Dhaka-Mawa-Padma Bridge-Janjira-Bhanga Rail Line Phase-II: Bhanga-Narail-Jessore Rail Line]	Tendering Services Phase-I
2	Construction of double line and upgrade of existing rail line between Akhaura and Laksam.	Feasibility Study, Detailed Design, Tendering Services
3	Construction of a railway bridge parallel to the existing Bangabandhu Bridge with provision of dual-gauge	Feasibility Study
	double track over the river Jamuna.	reasibility Study
4	Construction of single-line meter gauge railway track from Dohazari to Cox's Bazar via Ramu and Ramu to	Detailed Design, Update of Feasibility Study Tendering
	Gundum near Myanmar Border	Services
5	Construction of double line between Joydevpur- Ishurdi section of BR.	Feasibility Study
6	Strengthening/reconstruction of Hardinge Bridge to allow Trans-Asian Traffic.	Feasibility Study
7	Construction of railway bridge over the Jamuna river near Phulchari-BahadurabadGhat including	Feasibility Study
	approach rail links.	1 Casibility Study

## CLIENT

Bangladesh Railways

## COUNTRY

Bangladesh

## YEAR

2012

## **DURATION**

Ongoing

## **FUNDING**

Asian Development Bank

## **VALUE OF SERVICES**

\$9 million

## **TYPE OF SERVICES**

- → Feasibility Study
- → Detailed Design



# Few tips — Pre-Tender Stage

- → Anticipate tenders: all projects are made public before budget is even secured
- → CMS Learn to use it in advance
- → Extensively read ADB materials/guidelines
- → Attend ADB Business Fair in Manilla
- → Be ready to work on an open book basis





# FEW TIPS -TENDER STAGE

- → It's all about points The scoring is known and it is all about earning points :
  - Identifying the best candidates and draft CVs in the most detailed way to respond to requirements
  - Re-writing projects references to better reply to the project experience for this assignment
  - Writing Methodology demonstrating that you have the exact experience need for the project



There is no room for off the shelf answers



# Few tips —Tender Stage

- → Securing assistance of **local partner** is critical
  - Purpose of ADB is to ensure long term transfer of knowledge to locals
  - Understanding specificities of each country

→ ADB Procurement Methods are now used outside ADB-funded projects



# Few tips — Execution Stage

- → Quality is key: it is all about building long-term credibility with ADB by delivering what you promised – ADB staff is very qualified to monitor performance
- → Know and master the rules ABD staff very administrative & bureaucratic
  - Payment Keep your records in order
  - Replacement of resources is difficult



# VALUES OF WORKING WITH ADB

- → Open opportunities & markets you would not even consider in the first place
- → Business security: Advance/guaranteed payments
- → An knowledgeable interface in your relation with your ultimate client – ADB closes the cultural gaps that may exist between you and your client
- Working in projects that matters and with a social/collective/regional purpose
- → ADB Procurement Procedures are becoming a standard



Questions?





