

## PROJECT MANAGEMENT & ENGINEERING SERVICES

### OUTLINE

**TALICA** applies project management knowledge, skills, tools, and techniques to deliver a project that meets **your** project objectives.

### MARKETS

Heavy Industrial • Industrial • Commercial • Institutional  
Engineering Consultants • Technological Firms  
Transportation • Cement • Bulk Handling  
Construction • Manufacturing • Assembly Lines

### PROFILE

**TALICA Consulting** is a Corporation operating primarily in North America. Most of our customers are heavy-industrial / industrial companies or engineering firms, commercial companies, and educational institutions.

**TALICA** believes in teamwork, employee empowerment as well as partnerships with our customers. Our strength comes from our knowledge of Project Management Principles and Practices and our ability to integrate all aspects of a project in order to meet or exceed the project requirements of our customers.

**TALICA** focuses on delivering Project Management Services, managing projects from beginning to end. We do not simply consult; we manage our customers' entire project in order to let them concentrate on their business.

**TALICA** will become actively involved in the planning, designing, engineering, procurement, quality and construction aspects of the projects while maintaining tight controls on the schedule, costs, and scope. We have experience in Design-Build-Equip-Operate-Maintain type projects.

**TALICA** also offers specialized consulting services related to Project Management, such as Project Audits or Project Management courses and seminars.

Our team of professionals includes members of the Professional Engineers of Ontario (PEO), the Ordre des ingénieurs du Québec (OIQ), and the Project Management Institute (PMI). We also have staff qualified as Project Management Professionals (PMP).

### VISION - MISSION - VALUES

#### Our Vision

Become a leader in managing projects of any scope and complexity.

#### Our Mission

Successfully deliver projects by using innovative practices with the ultimate goal of increasing the competitiveness of our customers.

#### Our Values

**Leadership Driven.** We offer our employees a workplace that promotes professional growth and teamwork; we favour empowerment to build on creativity, initiative and sense of responsibility. We recognize our employees' contributions.

**Customer Focused.** We strive to exceed our customers' expectations and we build on long term relationships. We pride ourselves on adding value to their business by using innovating practices. We help make our customers successful in what they do.

**Committed.** We are committed to quality, accountability and integrity in order to achieve operational excellence.

**Responsible.** We believe in the highest standards of health and safety and respect of the environment.

## PROJECT MANAGEMENT SERVICES

**TALICA** can provide *any* or *all* of these services.

*Inquire about which services are right for your project!*

### Project Mgt Integration

**Coordinate all resources <sup>(1)</sup> and all services**  
*Develop and execute the project plan*

### Scope Management

**Deliver the specified product or service**  
*Verify that only the required work is performed*

### Schedule Management

**Ensure timely completion of the project**  
*WBS, sequencing, duration estimating, and control*

### Budget & Cost Management

**Complete the project within budget**  
*Budgeting, resource <sup>(1)</sup> planning, cost allocation, cost control*

### Quality Management

**Ensure the product satisfies the project requirements**  
*Quality Standards, Quality Assurance, Quality Control*

### Human Resources Mgt

**Ensure the most effective use of people**  
*Roles & responsibilities, hiring, developing, & training*

### Communication Management

**Timely and accurate generation and distribution of information**  
*Communication plan, status & progress reports*

### Risk Management

**Reduce project risks and realize project opportunities**  
*Risk identification, assessment, mitigation, & tracking*

### Procurement Management

**Acquire necessary product and services**  
*Soliciting (T&C, RFQ, RFP), selection, contracts, and expediting*

### Construction Management

**Provide services specialized for the construction industry**  
*Safety Management, Environmental Mgt, Claim Mgt, Financial Mgt*

### Engineering Services

**Ensure the project engineering is well coordinated**  
*Engineering contracts, drawing reviews, specifications review*

### Plant Shutdown Management

**Manage major plant shutdowns / overhauls**  
*Coordinate the entire shutdown, including scope, schedule, and cost*

### Project Auditing

**Compare project performance to initial goals and objectives**  
*Strengths, recommendations to improve future projects*

Adapted from the Project Management Body of Knowledge 2004 ©

(1) people (customer, engineering firms, suppliers, contractors, etc), materials, equipment

## PROJECT MANAGEMENT TRAINING

### **Level I Courses:**

- Introduction to Project Management
- Project Management Essentials
- Management by Projects

### **Level II Course:**

- Advanced Project Management

### **Level III Courses:**

- Project Management: Implementing a Change Control Process
- Project Management: Procurement of suppliers, consultants, and contractors

### **Workshop:**

- Risk Management Workshop: Identifying & Analyzing Risks; Developing Response Plans

### **Courses can be customized**

for your industry, your business, or your business unit.

Look on our website for the latest list of courses:

[www.talica.ca/training.asp](http://www.talica.ca/training.asp)

## PORTFOLIO • SELECTED PROJECTS

### CEMENT DOME

When the Lafarge Bath cement plant was unable to increase cement shipments due to lack of storage capacity during the winter months, the construction of a new 68,000 mt Dome Cement Storage



was approved by the Lafarge Board of Directors. The owner of TALICA Consulting was responsible for the entire project, including the feasibility study, the project planning, the engineering, procurement, and construction, and the final testing and commissioning.

This project was successfully delivered ahead of schedule (in 9-1/2 months instead of the 18 month budget) and within budget despite the numerous challenges, including high-tech construction methods, state-of-the-art reclaiming system, and size.

The dome, a shotcrete structure of 180' diameter, was the largest in the world at time of construction. It is filled by an airslide system and reclaimed by "spider web" withdrawal airslides with an innovative level box at a capacity of 1,200 tph.

**Note:** Employed as Project Manager by Lafarge North America

### LAS VEGAS MONORAIL

The Las Vegas monorail is arguably the most high profile transportation project in recent years, not only by its audacious look, its completely driverless automated system, and its new elevated guideway defying the landscape of Las Vegas, but also by its aggressive schedule and innovative financing. The CA\$910M project was entirely funded by the private sector. The Owner of TALICA Consulting was responsible for the project management of the vehicle portion of the system (CA\$140M), including the design and manufacturing of the nine trains by Bombardier Transportation and interfacing with the other divisions, the end-customer, and its consultants.

This project was delivered one month ahead of schedule (when taking into account the testing at the manufacturing facility) and under budget.

The monorail travels the busy city at 80 km/h and can carry close to 50 million passengers every year on its 6.4 km rails.



**Note:** Employed as Project Manager by Bombardier Transportation

### NEW YORK CITY COMMUTER TRAIN

The New York city commuter train of the Long Island Rail Road and the Metro North Railroad (MNR) is the largest commuter network in North America. Bombardier Transportation was retained to engineer and manufacture new Electric Multiple Unit (M7) trains for these two railroads. This project is the largest transportation supply project in several decades, now with well over 1,000 cars at a cost of CA\$2.25 billion.



Bombardier Transportation retained the services of TALICA Consulting to manage the Metro North Railroad portion of the project (CA\$450M). TALICA was responsible for Bombardier's internal leadership, including the management of project performance, contract administration and changes, and external leadership, including the relationship, management, and change orders with the end-user, MNR. Challenges included a new product, tight schedule, and 5 worksites.

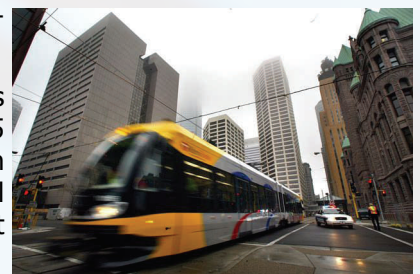
The M7s are arranged in semi-permanent pairs with a capacity of approximately 210 passengers seating and 470 at crush load. The trains can accelerate at  $0.9 \text{ m/s}^2$  to a top speed of 160 km/h.

### MINNEAPOLIS/ST-PAUL LRV

The city of Minneapolis/St-Paul retained the services of Bombardier Transportation to engineer and manufacture 24 Light Rail Vehicles (LRV) for the Hiawatha corridor. The project links the twin cities popular destinations such as downtown Minneapolis, the international airport, the University of Minnesota, and the Mall of America on its 19 km tracks for a total cost of 1 billion dollars.

Bombardier Transportation retained the services of TALICA Consulting to manage the engineering changes and improvements on the trains and their implementation at the manufacturing facilities in Plattsburgh, NY and Sahagun, Mexico, and in the field. Responsibilities included project management services, risk management, change control, and customer relations. Challenges included new design, very short turnaround time and 4 worksites.

The Hiawatha trains are rated at 245 passengers crush load, and travel through the city at 88 km/h.



# PROJECT MANAGEMENT PROCESSES / PROJECT PHASES

**TALICA can provide project management and engineering services for any or all of your project phases.**

*Involve TALICA in all phases of your project to ensure its success!*

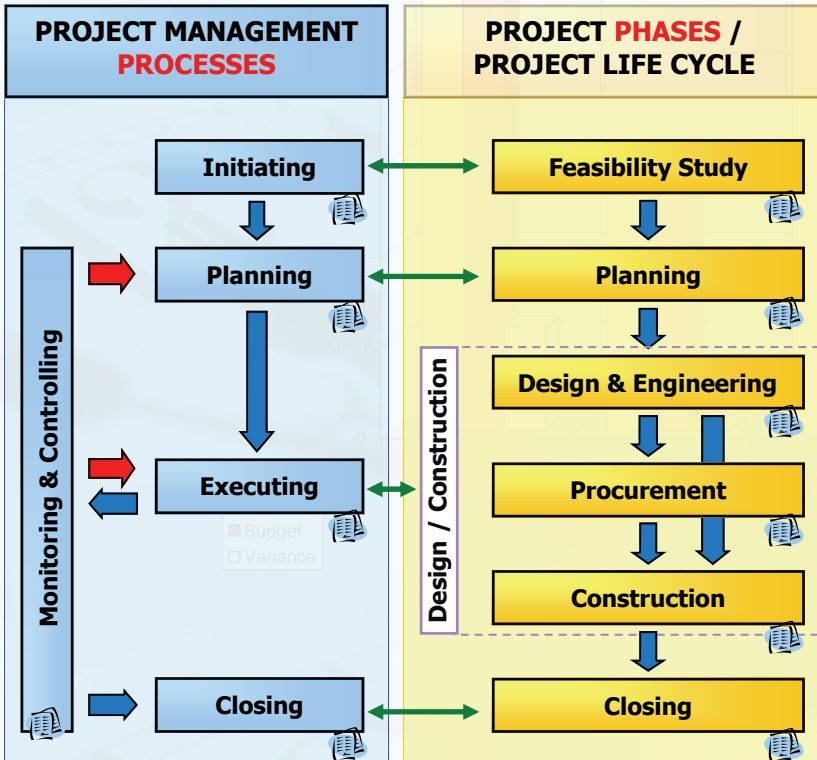
TALICA applies the methodology (processes) developed by the Project Management Institute to manage your projects.

TALICA provides Project Management Services and Engineering Services for all of your project phases.

*We have experience with design-build-operate-maintain (DBOM) contracts.*

*We can take your ideas and transform them into a successful project.*

*We can help if you are experiencing an unusual work load in your project management or engineering department.*



Project goals & objectives, preliminary budget, alternatives, preliminary engineering, preliminary layout, financial analysis, funding request.

Project Management Plan: Scope statement, schedule, cost/budget, quality planning, HR planning, communications planning, risk planning, procurement planning.

Engineering and architectural contracts, detailed design & engineering <sup>(1)</sup>, drawings, technical descriptions (equipment & construction), soil investigations, QA.

Contract Technical Specifications & Terms and Conditions, soliciting, RFQ/RFP, bid evaluations, negotiations, contracts management <sup>(2)</sup>, equipment expediting.

Contract Scope of Work and Terms and Conditions, tender, bid analysis, construction & installation <sup>(1)</sup>, contracts management <sup>(2)</sup>, safety, testing & commissioning.

Punch list, completion of deficiencies, final performance testing, audit of project objectives & financial analysis, project records filing & storage.

Each **Process / Phase** is completed with pre-determined **deliverables**

*\* This example applies to the construction industry*

**(1)** civil, structural, mechanical, electrical, automation  
**(2)** includes quality assurance, quality control, site inspections

## MEMBERSHIPS

- Professional Engineers of Ontario (PEO)
- Ordre des Ingénieurs du Québec (OIQ)
- Project Management Institute® (PMI)
- Project Management Professionals® (PMP)

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## NOTES

