



January 22, 2010

SOCIÉTÉ DE TRANSPORT DE MONTRÉAL

Subway car procurement project – MR-08 Project

INTERNATIONAL PUBLIC NOTICE

In accordance with the authorization dated April 27, 2009 issued by the Minister of Municipal Affairs, Regions and Land Occupancy pursuant to section 103 of the *Act respecting Public transit authorities* (R.S.Q., c. S-30.01), the Société de transport de Montréal hereby notifies the international marketplace that, further to call for tenders number 3385-06-07-38 dated July 31, 2008 and subsequent negotiations, it intends to enter into a contract for the purchase of rubber-tired subway cars to replace its 336 MR-63 series cars delivered in 1965 and 1966 and its 423 MR-73 series cars delivered between 1976 and 1981.

The base order is for 765 rubber-tired subway cars with an option to purchase up to 288 additional cars.

The main terms and conditions required by the Société include the following :

Canadian content :

Requirement (i) of a minimum of 60% Canadian content for each train, with the exception of the first two trains (in respect of which the requirement is of a minimum of 57.5% Canadian content), (ii) of an average minimum of 60% Canadian content, for all trains, and (iii) of final assembly to be carried out in Canada.

Delivery schedule :

The first train must be delivered 32 months after the signing of the contract.

The delivery rate after delivery of the 3rd train (to be delivered the 45th month after signing) is one train per month.

Cash flows :

First advance of 7.5% of the total price, upon the signing of the contract.

Further advances equivalent to 15.8% of the total price shall be paid progressively before delivery of the first train.

The balance shall be paid in accordance with the provisional acceptance of each train, subject to a holdback of 2% of the price.

Indexation :

Payments made pursuant to the contract, with the exception of the first advance of 7.5%, shall be indexed according to a formula that takes into account any changes in certain consumer price, industrial products price, energy and metal products price indices.

Letters of credit and guarantee :

Progressive letters of credit covering approximately 50% of the difference between payments made in respect of the trains and their acquired values, are required.

A solidary guarantee is required from the supplier's parent company for the part of the difference that is not protected by letters of credit.

Exchange rates adjustment :

The price of the trains included in the base order shall be subject to an adjustment for variation in exchange rates, from the time of deposit of the price up to the signing of the contract.

The price of the trains under option shall be adjusted on the date each option is exercised.

Penalties :

A late penalty of (i) \$10,000/day for the first 6 trains and (ii) \$5,000/day for all trains delivered after the delivery date stipulated for the last train of the basic order, the whole not to exceed 5% of the total price.

Penalty of up to 2% of the total price where the weight of a train (with the exception of the pilot train) exceeds 250,000 kg. The Société may refuse delivery of any train whose weight exceeds 255,000 kg.

Intellectual property :

The Société may use the intellectual property provided in connection with the contract for the purposes of using, operating, maintaining, repairing, modifying, adapting, or replacing the trains, purchasing similar trains or trains of the same type, manufacturing and reproducing the parts necessary for such purposes and, subject to certain conditions, having the aforementioned modifications, replacements, manufacturing and parts reproduction carried out by third parties.

Language :

All notices, documents and other written instruments that must or may be sent to the Société must be in French, and all communications between the Société and the supplier must take place in French.

A technical description containing a general summary of certain technical specifications required by the Société for its subway cars is appended to this notice.

A rolling stock supplier which is interested in this project and which has, within the last fifteen (15) years, manufactured rubber-tired subway cars, must file with the Société at the address indicated below, on or before March 1, 2010, its formal expression of interest accompanied by all documents and information demonstrating the following to the satisfaction of the Société :

- (1) its ability and undertaking to comply with the Canadian content requirements;
- (2) its financial and technical ability to carry out the project; and
- (3) its manufacturing and organizational capacity to comply with the delivery schedule requirements.

The Société reserves the right to require that interested suppliers provide any further information that it may consider relevant for the purposes of its analysis.

Société de transport de Montréal Representative :

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Reserve :

This notice of intent is not an undertaking by the Société to enter into a contract with any person whatsoever.

Technical Description - MR-08

MR-08 trains are configured as 9 car sets with inter-car gangways for passenger circulation throughout the entire length of the train. End cars are equipped with a full width control cab. The two end cars are trailer cars and the 7 intermediate cars are motorized.

MR-08 trains are equipped with rubber-tired bogies. The guiding wheels are also rubber-tired.

Traction power supply is through collector shoe contact with the guiding rail.

Car Body

Car body structure is built from carbon steel, stainless steel or aluminum alloy. Specific structural parts can use composite material. The car body structure has a 10-year warranty.

Crashworthiness and energy absorption

A collision between two MR-08 trains in W1 condition, with one train brakes applied and the other train moving at a speed of 15 km/h, must not cause a permanent deformation to the car structure. For collisions at relative speeds over 15 km/h, the energy exceeding the capacity of the energy absorption device will cause a progressive deformation of the car body structure from the end of the train. The cabs are crushed before the passenger compartment.

Exterior finish

Exterior finish of the cars is metallic finish vinyl film with screen printed graphics and painted cab module. The paint scheme is identical for all the trains. Each type of car has the same paint scheme. The life of the film is at least 7 years.

Noise level

Stationary train maximum interior noise level is less than 65 dBA. All other noise levels are based on the

Network

Track gauge, safety wheels	1435 mm
Maximum gradient	6,5%
Third rail supply voltage	750 Vcc

Performances

Maximum speed	72,4 km/h
Starting acceleration	1,207 m/s ²
Service brake deceleration	1,23 m/s ²
Emergency brake deceleration	1,79 m/s ²

Dimensions

9 cars train length over coupler.....	152 437 mm
End car length.....	17 387 mm
Intermediate car length.....	16 809 mm
Distance between bogie pivots	11 125 mm
Floor height above rail level.....	1 150 mm
Passenger doorway width.....	1 650 mm
Passenger doorway height	1 950 mm
Height above rail level	3 735 mm
Car width.....	2 514 mm

existing MR73 trains with an improvement of around 3 dBA.

Electromagnetic compatibility

The EMC requirements for MR-08 trains are based on international standards IEC 62236 and IEC 61000.

Gangway

The minimum gangway passageway dimensions are 1300 mm wide by 1950 mm high. The life of the bellow is at least 10 years.

Ventilation

The passenger compartment ventilation is by a forced air ventilation system with 13000 m³/h maximum output. Cab cars are equipped with independent HVAC system.

Passenger side doors

Each car is equipped with 3 bi-parting outside sliding doors per side. All doors on one side open at each station. Door operators are electric with obstruction detection and audio and visual closing signals.

Interiors

The interior design concepts were developed by STM. The seats are

cantilevered and made of a rigid fibre reinforced plastic shell. End cars are equipped with 22 seats, 2 flip-up seats and 2 dedicated spaces with ischiatic supports. Intermediate cars are equipped with 28 seats and 4 flip-up seats. Interior design meets universal accessibility requirements.

Traction and braking system

Each motor car is equipped with one IGBT traction inverter module. Service braking is mainly using electric regenerative braking reducing the use of friction braking and power consumption. An open circuit detection system (option) is used to inhibit electric regeneration on an unpowered section of track.

Communication system

Each car is equipped with 4 flat screens (size 19 inches; 16:9 format) in the passenger compartment for passenger information. Each car is also equipped with 3 passenger intercom modules (5 in each end car), an automatic announcement system and 4 CCTV cameras.