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CONTRACT AWARD FOR VIVA VEHICLES

The Rapid Transit Public/Private Partnership Steering Committee recommends the following:

1. **The presentation by Rick Takagi, Manager, Operations, York Region Transit, be received; and**

2. **The recommendations contained in the following report, June 7, 2007, from the Vice-President, York Region Rapid Transit Corporation, be adopted:**

1. RECOMMENDATIONS

It is recommended that:

1. Council authorize the further purchase of eleven (11) 18 metre 2007 emission compliant, articulated rapid transit vehicles, under the terms of the original agreement with Van Hool N.V. of Belgium, at a total cost of $9,664,000.00, including PST.

2. The terms of the original agreement continue to apply to the purchase of additional buses, subject to any terms negotiated by staff, which are more favourable to the Region.

3. The Regional Chair and Clerk be authorized to execute an amending agreement between the Region and Van Hool, subject to approval by Legal Services.

2. PURPOSE

This report assesses and recommends acquisition of eleven (11) additional 18 metre rapid transit vehicles (RTV's) for the Viva fleet to continue to achieve performance targets and accommodate ridership growth.

3. BACKGROUND

On March 24, 2004 York Region entered into an agreement with Van Hool for the supply of fifty-five (55) 12.2 m. and twenty-two (22) 18 m. vehicles at a total cost of $46.4 million including PST. That agreement contained provision for the supply of additional vehicles at the same per unit price as the original order, provided that an order was placed prior to the end of 2004. On December 16, 2004, Council authorized staff to exercise the option in the purchase agreement for three (3) additional 18 m. and five (5) additional 12.2 m. vehicles at a total cost of $5.0 million including PST.

The Region's agreement with Van Hool contained provisions for the supply of additional vehicles after December 31, 2004 at the original vehicle price plus a cost adjustment for inflation. In February 2006, Council approved a further purchase of five (5) additional 18 m. articulated transit vehicles at a cost of $4.0 million including PST, in response to additional ridership and congestion growth in the Yonge Street corridor. These vehicles were delivered recently and are needed to meet 2007 service requirements.

A review of the potential options to improve the overall performance of Viva Phase 1 based on the operating experience of the Viva Phase 1 system to date and changing conditions throughout the system, due to additional land development and growth and the overall delay to the original schedule for implementing Viva Phase 2, was brought to Rapid Transit Committee in April. Committee agreed with the staff recommendation that in order to keep the system healthy and current that it was desirable to construct three additional queue jump lanes and that potential enhancements to the Traffic Signal Priority system should be analysed. Staff also recommended a new Viva station on Yonge Street in the vicinity of Stouffville Road, which would service a rapidly emerging new development area, thus attracting new riders, without adversely affecting system performance. The report to Committee further indicated that staff would return with recommendations for additions to the vehicle fleet in response to increased ridership, traffic congestion, and service extension to Cornell.

4. ANALYSIS AND OPTIONS

York Region has made a significant investment in Viva Phase 1. Keeping the system healthy and current, while working towards the ultimate funding and construction of Phase 2, is vitally important to preserve ridership growth and the established system brand. This section of the report evaluates and recommends additions to the Viva rapid transit fleet.

Additional vehicles are required to accommodate ridership growth, and maintain and enhance service levels planned for 2008

Since Viva service commenced in September 2005, ridership has grown significantly and the service enjoys excellent public response and critical acclaim.

In their reports to Committee and Council of February 9, 2006, and April 12, 2007, staff committed to report back on future vehicle requirements based on ridership growth and congestion.

The 2008 draft service plan for Viva includes the following additional elements:

- Additional service on the Blue route starting in September 2008 that was deferred from 2007
- Extension of full Purple route service to Cornell, starting in January 2008.

Additional vehicles are required to support additional service elements and fleet operations that are planned for 2008

The 2008 Viva service plan vehicle requirement is built up as illustrated in Table 1.

Table 1
2008 Viva Service Recommendations and Fleet Needs

2007 Service	**Vehicles Required**	**Cumulative Fleet**
2007 year end peak demand service	90	90
Total Year End 2007		**90**
2008 Service		
Blue route frequency improvements	5	95
Purple route extension to Cornell	3	98
Congestion contingency	1	99
Spare ratio for maintenance	2	101
Total Additional Required 2008	**11**	
Total Year End Fleet 2008		**101**

Planned service provisions and fleet operational requirements for spares and contingency will require an additional eleven (11) 18 m. vehicles in 2008, increasing the Viva fleet to 101 vehicles from the current fleet of 90 vehicles.

Frequency improvement to the Blue Route is required

It is desirable to increase service frequency on both the Bernard-Finch and Newmarket-Finch branches in order to accommodate additional riders on the system and maintain the quality of rapid transit service in the highly important Yonge Street corridor. Five vehicles are required for the Viva Blue Route to improve frequency from 10 minute to 8.5 minute headways on each branch (Bernard to Finch and Newmarket to Finch) for a combined headway of 4.25 minutes. Expansion of Blue route (Yonge) peak period service to meet demand is estimated to require 8,020 revenue service hours at a cost of $600,000. It is anticipated the increase in service frequency will yield at least the same level of revenue to cost ratio (currently 70%) that exists on the Blue route.

Extension of the Purple Route to Cornell is warranted

Initial planning for Viva Phase 1 included routing for the Purple and Green services eastward to the Cornell/Markham-Stouffville Hospital area, in preparation for the Cornell Terminal planned at Highway 7 and Markham Bypass. At the time, a number of options were considered to provide sufficient pick-up/drop-off and layover capacity at or adjacent to the hospital that would provide both reasonable connection to the hospital and existing YRT services in the area. These options were ultimately deemed unsuitable for a number of reasons, including conflicts with hospital construction, development timing, residential complaints, and cost.

As a result, the decision was made to terminate the initial Purple and Green services at Highway 7 and McCowan Rd. A key factor in this decision was the fact that the segment of Highway 7 between McCowan and 9th Line is of a relatively low density with poor walk-up access, and that without a suitable connection to the Hospital and YRT services, there was very little advantage to extending the services further east beyond McCowan. Furthermore, no logical turnaround location could be identified that provided adequate layover space and driver amenities that would be desired.

Extension of full Purple route service to Cornell is recommended for 2008. This service extension will require 9,830 revenue service hours, which are estimated to increase annual Viva boardings by 193,600 riders (2006 estimate). This is estimated to increase Viva's operating costs by approximately $740,000 annually. Fare revenue recovery for this additional service is anticipated to be in keeping with current revenue cost ratio for the route.

Spare buses are required for the maintenance and service program
Spare buses are needed to cycle vehicles through an inspection and maintenance program, which is conducted for safety and preventative measures as required by the Province through the Highway Traffic Act. The spare ratio used by YRT is 18%, which is in the range consistent with that utilized by other transit agencies.

In order to meet 2008 Viva service plans, there will be a need to have an additional eight buses in operation during peak periods. It is anticipated that one Viva vehicle will be required in 2008 to deal with congestion and maintain existing service frequency levels. Two spare buses are needed for maintenance purposes. It should be noted that many of the buses are in service 7 days a week for 10 plus hours per day. As such, preventative maintenance is regularly performed monthly on each bus in addition to other unscheduled maintenance, inspection requirements and repairs due to accidents and road damage thereby requiring the 18% spare ratio.

There are implications if the additional vehicle order does not proceed at this time
The lead time for bus delivery is approximately 13 months upon placing the order. As such, additional viva buses will need to be ordered by the end of June 2007 in order to receive delivery in time for service improvements being initiated on Blue and Purple starting in early September 2008. Delaying the proposed bus order will delay the start date of the proposed service expansion. Service reliability would also be negatively affected as there would be an insufficient number of buses available to deal with congestion issues.

This vehicle order and all future additions to the Viva fleet should be of the 18 m. articulated type
This order for eleven (11) additional 18 m. vehicles will initially be placed on the high ridership Viva Blue and Pink routes, allowing the conventional 12.2 m. buses to be redeployed on the other Viva routes.

Based on current loading patterns, ridership growth and congestion patterns it is recommended that this order and all future additions to the Viva fleet be of the 18 metre articulated type.

Procurement of additional vehicles will be negotiated in accordance with the Van Hool agreements

The original agreement with Van Hool provided an option to purchase additional vehicles for a period of two years on the same general terms, subject to negotiation of price, delivery schedule and specifications. Van Hool has agreed to extend the expiry date of this provision so that the purchase of additional buses would be governed by the terms of the original contract on matters such as warranties and delivery protocols. Staff is also negotiating enhancements to the standard conditions that would apply to the new vehicles.

Staff recommends that the 11 additional Viva vehicles be purchased under the terms of the original agreement with Van Hool due to the following advantages:

- Original contract specified price for vehicles was procured on a competitive basis.
- The current price is within industry norms for a vehicle of this type purchased today.
- Operational experience with the vehicle has been acceptable to date.
- Consistent vehicle appearance will continue to promote what has been a very successful Viva brand.
- Spare parts inventory, equipment and operator training would continue to be standardized.
- Contract terms have already been negotiated, resulting in savings in administrative and legal costs.

The additional vehicles, if ordered prior to the end of June 2007, would be contracted for delivery starting in July 2008, in time to fulfill the additional service requirement in 2008.

5. FINANCIAL IMPLICATIONS

It is proposed that eleven (11) additional 18 metre articulated vehicles, at cost of $878,549 per vehicle, be acquired at a total cost of approximately $9,664,000, including PST. The price is based on the price York Region paid for the 5 vehicle order that was approved by Council on February 16, 2006, plus an adjustment to reflect inclusion of a 2007 emissions compliant engine, a price adjustment for higher shipping costs and a small element of inflation. The unit price also includes improved warranty benefits, a higher grade of lighting at the rear doors, and door safety improvements. The contract requires a 10% deposit on the equipment order and payment of the remaining balance at the time of delivery.

The draft 2007 Business Plan and Budget includes a ten year capital plan for expansion buses for the first of phase of Viva through 2009. Viva Phase 2 implementation is currently scheduled for 2010, and will mark a significant shift in the service plan and possibly the vehicle technology used.

Table 2 provides a comparison of the cost of the 18 metre for the orders placed for this vehicle since the initial purchase in 2004.

Table 2
Cost History for 18 metre Van Hool Vehicles

Order Date	Vehicle Cost (including PST)	Change over previous order
March 2004	$800,881	na
December 2004	$800,881	0.0%
February 16 2006	$838,661	4.7%
June 2007 (Proposed)	$878,549	4.8%

The additional vehicles will be funded 100% by the Region. Sufficient funds are available in the 2007 Business Plan and Budget.

Impact on Operating Costs

YRT estimates that the addition of eleven (11) 18 metre vehicles to the Viva fleet will be used for service expansion needs with an operating cost of approximately $1,340,000 annually. This cost is offset by additional revenue generated by fares which is estimated at $730,000 annually after the first year. As such, the net cost is estimated at $610,000 per year. The revenue and costs will be included in the 2008 Business Plan and Budget and will be pro-rated to reflect intended start dates of the new service.

6. LOCAL MUNICIPAL IMPACT

The eleven (11) additional buses will result in additional service in the Yonge Street corridor, as well as the extension of full Purple route service to Cornell Centre in Markham in 2008. The provision of adequate spares will improve on-time service on all lines and is included in this order.

7. CONCLUSION

This report recommends acquiring eleven (11) additional 18 m. 2007 emissions compliant rapid transit vehicles from Van Hool N.V. of Belgium at a cost of $878,549 per unit, including PST. The total cost of this order is estimated to be $9,664,000. These vehicles will enable Viva to meet projected ridership growth, maintain and improve operating schedules to meet these demands, and extend Viva Purple route service to the Cornell area as envisioned in the original Viva network plan.

The Senior Management Group has reviewed this report.