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YORK REGION TRANSIT
TRANSIT STORAGE AND MAINTENANCE FACILITIES STRATEGY

The Transit Committee recommends:

1. The presentation by Don Gordon, General Manager be received; and

2. The recommendations contained in the following report, January 11, 2006 fom the Commissioner of Transportation and Works and Vice President, York Region Rapid Transit Corporation be adopted.

1. RECOMMENDATIONS

It is recommended that:

1. The strategy outlined in this report to develop the facilities necessary to store and maintain the Region's combined conventional and paratransit fleets to the year 2031 be endorsed.

2. Regional staff begin to identify and, subject to Council authorization, purchase suitable lands in the municipalities of Markham, Vaughan and Newmarket for the purpose of constructing transit storage and maintenance facilities in order to be available in the time period 2009-2012.

2. PURPOSE

This report seeks endorsement of a strategy for providing transit vehicle storage and maintenance facilities to 2031 based on forecast demand for transit services and vehicle requirements.

The report identifies the optimal distribution of the transit fleet, the operational and financial implications of the strategy and lays out an implementation plan and schedule to achieve this objective.

Based on this strategy, the report recommends that the Region embark on a program to identify and purchase suitable lands to facilitate the construction of new transit storage and maintenance facilities beginning as early as 2008.

3. BACKGROUND

York Region's public transit services, York Region Transit (YRT) and York Region Rapid Transit Corporation (Rapidco), along with the York Consortium 2002, have investigated the future facility requirements necessary to maintain and store the Region's combined transit fleet and accommodate future administrative and operational needs of the Region's transit services.

The results of this investigation are contained in the Report on Transit Storage and Maintenance Facilities Strategy for York Region (*Attachment 1*.)

The objective of the study was to forecast the number, size and general location of the required facilities based on the horizon year of 2031, which coincides with the current planning timeline for the Region of York Transportation Master Plan (TMP).

3.1 Provision of Current Transit Operations

All transit services in York Region are currently being provided by private contractors including the recently launched Viva bus rapid transit service. As the fourth largest municipal transit service in Ontario, the delivery of an overall storage and maintenance facilities strategy to accommodate all transit services in the Regional network is timely.

3.1.1 York Region Transit Services

Transit services in York Region are managed by the Region's Transit branch, YRT. Conventional transit services are contracted to three private operators: Miller, Laidlaw and Tokmakjian (Can-Ar is a division of Tokmakjian). The present YRT conventional fleet consists of 240 buses plus a small fleet of 13 specialized paratransit vehicles to serve people with special needs.

3.1.2 Viva Rapid Transit Services

York Region's new rapid transit service, Viva, was launched in September 2005, and Phase 1 will be fully operational by year's end. The Viva fleet consists of 85 advanced design rapid transit vehicles (RTVs). The service is managed by YRT and operated under contract to 4286847 Canada LP (a limited partnership involving Connex and Tokmakjian).

3.1.3 Other Transit Services Operating within York Region

The Toronto Transit Commission (TTC) provides extensive service under contract to York Region on the north-south corridors that are extensions of the TTC's base service. GO Transit provides inter-regional commuter services in the Yonge Street corridor from Newmarket and Aurora to the GO Finch Terminal in Toronto. GO bus services are also provided in the Highway 9/Davis Drive and Highway 400, 404 and 48 corridors. This is in addition to three commuter rail lines which provide residents of York with direct access to downtown Toronto. York Region Transit and Brampton Transit jointly operate Route 77 between Bramalea Shopping Centre in Brampton and the GO Finch terminal via Highway 7 and Centre Street. Collectively, these external bus services add an equivalent of approximately 68 buses (31 each for GO Transit and TTC and 6 for Brampton Transit) to the York Region transit fleet total.

4. ANALYSIS AND OPTIONS

4.1 Overview

The main elements of the Transit Storage and Maintenance Facilities Strategy are:

- Population forecasts and transit fleet requirements to 2031.
- Determination of the number and distribution of facilities.
- Supply of future facilities.
- Vehicle storage and provision for heavy maintenance activities.
- Implementation plan and timetable for land acquisition and construction.
- Preparation of preliminary capital cost estimates and funding options for recommended facilities.

4.2 Fleet Requirements

York Region's population is forecast to increase to 1.5 million by 2031.

York Region's population is forecast to increase from its current level of approximately 900,000 to about 1.5 million by 2031. The TMP targets the transit peak period modal split to increase from its current level of 8% to about 17% over this period. In South York Region the targeted modal split is much higher at 30%. This significant population growth and increasing emphasis on the use of public transit to accommodate travel demand will require a major increase in transit services and the Region's transit vehicle fleet by 2031.

The York Region transit fleet will need to grow by nearly 500% to meet future demands for transit and to achieve a Region-wide modal split of 17% by 2031.

The Region needs to plan transit facilities to accommodate the growth of its fleet from 375 vehicles in 2006 to as many as 1,500 vehicles in 2031. An estimate for overall future York Region transit fleet size is presented in Table 1.

Up to 2013, observations of vehicles per 1,000 population from other Canadian urban jurisdictions were used to arrive at a requirement for 599 vehicles. Beyond 2013, in order to achieve the overall target Regional modal split of 17% by 2031, it will be necessary to increase the number of vehicles to be more reflective of larger and more transit-oriented jurisdictions. Hence, service levels would be increased gradually from one vehicle per 1,500 population in 2021, to one vehicle per 1,250 population in 2026, and to one vehicle per 1,000 population in 2031. For comparative purposes, OC Transpo in Ottawa currently operates a fleet of 903 buses serving a population of 854,300.

Table 1
York Region Population Projection and Transit Fleet Requirements

Year	Region Population	Ratio	Unit Fleet Size
2013	1,110,000	1,993	599
2021	1,300,000	1,500	867
2026	1,400,000	1,250	1,120
2031	1,500,000	1,000	1,500

4.3 Accommodating the Fleet

The most practical and economic size for a transit storage and maintenance facility is one that would accommodate a maximum of 250 vehicles which requires approximately 15 acres of land. These complexes must also provide for operating, supervisory, administrative and office personnel as well as associated parking requirements and landscaping treatments.

Given a total estimated fleet of 599 vehicles in 2013, and 867 vehicles in 2021, an appropriate geographic distribution indicates the need for a minimum of three facilities within the Region in 2013 based on an average facility size of 250 vehicles. To ensure an efficient operation based on the geographic distribution of the Regional transit fleet, four facilities would be required to support all Viva/YRT services by 2021 (with an additional three, or a total of seven, by 2031).

4.3.1 Expansion Priority

This section prioritizes the development of new transit storage and maintenance facilities and identifies preferred locations.

Richmond Hill

The proposed facility at Langstaff should be operational by 2008-09. Most of the Viva equipment would be located at this facility with potential future vehicles out-posted to Newmarket, Vaughan and Markham for the purpose of starting peak period services in each corridor.

Markham

Continued service expansion would see the Markham fleet grow to 161 units by 2013 and to 264 units by 2021 and is the next priority for a new facility. An initial 15-20 acre site is required east of the 9th Line, ideally in the Highway 407 corridor, and should be operational by 2010-11. An additional facility will be required by 2031.

Vaughan

Vaughan’s portion of the Region fleet will be 165 vehicles by 2013 and 250 vehicles by 2021 and would be the next priority for expansion following Markham.

A 15 acre site located north of Highway 7 and west of the CN marshalling yards would best suit current and projected routes. An additional site will also be required beyond 2021.

Newmarket

The current Viva North Maintenance Facility can accommodate anticipated service demands until approximately 2013, and by that time, a solution needs to be in place which may involve surplus land available at the GO Transit site located adjacent to the North Maintenance Facility. A second option is property on the Region's Bales Drive site near Davis Drive east of Woodbine Avenue.

4.4 Supply of Future Facilities

Currently, YRT local contractors supply their own facilities as part of their service contracts, however, by owning its own facilities, the Region can establish a "level playing field" for its services and award contracts to the highest rated proponent. Providing such facilities makes sense over the longer term and removes a proprietary advantage held by proponents who own land and which otherwise limits competition.

4.5 Vehicle Maintenance

Currently, all individual conventional transit service contractors in York Region are responsible for undertaking their own maintenance, however, with the Region owning its own facility, two possible maintenance scenarios will play out in York Region in the future. In both cases, it is desirable to provide light maintenance at all facilities in order to minimize dead-heading and out-of-service time. Heavy maintenance, on the other hand, is time consuming, requiring specialized testing equipment and trained staff, and can be performed at either a central facility, or by contracting-out to specialty shops located throughout the GTA. The combination of the two are current practices by GTA fleet managers.

Regardless of the maintenance model selected, it will have no bearing on the number of facilities required, their location, nor size of site. Such factors are determined by fleet distribution and the number of vehicles that must be accommodated at each site.

4.6 Vehicle Storage

Vehicle storage will be an important consideration in developing future operations and maintenance facilities. YRT is one of the few transit operators in Ontario that allows outside storage of its fleet. This is in large measure due to the nature of the current contractor based service delivery model.

Ultimately, the selection of indoor or outdoor storage has little or no bearing on the size of the site required and further business case analyses will be brought forward for consideration before any final decisions are made.

4.7 Implementation Plan

The acquisition of property for Markham, Vaughan and Newmarket facilities should be undertaken in parallel to the opening of the Langstaff facility and construction of these facilities would be based on the needs previously identified in this report as the transit system expands.

The Region should endeavour to acquire as many sites as possible subject to the availability of funding as suitable land is in short supply.

It should be noted that the extension of the operations and maintenance contracts with the existing YRT contractors will now coincide with the availability of the facilities in each of the municipalities.

Table 2
YRT Proposed Property Acquisition Timeline

Year	Activity
2006 – 2008	Identify and purchase land for 3 facilities, one each in Markham, Vaughan and Newmarket
2008 – 2010	Construct permanent facility in Markham
2008 – 2010	Construct permanent facility in Vaughan
2008 – 2012	Construct permanent facility in Newmarket
2008 – 2012	Staged transition of the YRT fleet from contractor-owned facilities

Table 3
Viva Proposed Property Acquisition Timeline

Year	Activity
2005 – 2006	Purchase land for Langstaff
2005 – 2008	North Maintenance Facility location serves as a Viva facility until the construction of Langstaff in 2008; then becomes primarily a YRT facility and a satellite for Viva
2005 – 2006	Plan/design Langstaff central facility
2006 – 2008	Construct Langstaff
2008 (late)	Occupy Langstaff
2008	Viva would transition its fleet from the North Maintenance Facility to Langstaff

4.7 Relationship to Vision 2026

The primary reason for developing the Transit Storage and Maintenance Facilities Strategy is to ensure that transit services are delivered in a consistent and economic manner. This strategy identifies specific objectives including land acquisition and construction timetables which will support YRT's mandate to contribute to an increase in the Region's transit market share (modal split).

Vision 2026 includes a goal statement relating to the development of Infrastructure for a Growing Region, which states that:

"In 2026, York Region will have effective, efficient and environmentally sensitive transportation, waste management and water systems."

To support this goal, the Region has identified specific action areas. The following action areas have been considered for this report:

- Continuing to improve service and infrastructure for successfully integrated transit services.
- Developing a network of transit facilities at strategic compass points throughout the Region.

By endorsing the Transit Storage and Maintenance Facilities Strategy, the Region's family of transit services will continue to be delivered in an economic and practical transit supportive environment and thus contribute to the development of a more balanced transportation network.

5. FINANCIAL IMPLICATIONS

As a first step, the Region should move forward with securing the required land for facilities to the year 2013. Anticipated land acquisition costs in 2006 dollars will be determined by market value. Decisions regarding the nature of the specific facility, indoor vs. outdoor storage, etc., will be dealt with as part of the site specific details reported on in future reports. Land acquisition is subject to funding and budget approval, but generally the acquisition of land should be undertaken as soon as possible as available lands are rapidly disappearing in the identified municipalities. For estimating purposes, facility costs could range between $30 million and $40 million for a 250 bus facility, plus land costs ranging from $4.5 million to $9.0 million for a 15 acre parcel of suitably serviced sites. At the present time, no dedicated funding programs at the provincial or federal levels of government are available to assist with building these facilities.

Secondly, the Region should commence dialogue with GO Transit to confirm if there is any opportunity to accommodate York Region's transit fleet growth on their vacant land in Newmarket and, at the same time, set aside 15 acres at the Region's Bales Drive site until this determination has been made.

The Region currently directs a portion of its development charge revenues towards new transit infrastructure while "gas tax" revenues received from senior government sources have been allocated, by Council, to both capital infrastructure (30%) and toward operating expenditures (70%) for 2006. Both of these sources could be used to fund property acquisition and the construction of transit storage and maintenance facilities.

Consideration should also be given to acquiring sites that present joint development opportunities with the private sector, as a means to defray the cost of the storage and maintenance facilities.

Finally, staff should investigate potential properties to accommodate the fleet post 2013 and report to Regional Council on their findings.

6. LOCAL MUNICIPAL IMPACT

The municipalities of Newmarket, Markham and Vaughan are targeted as preferred locations for storage and maintenance facilities. York Region Transit and Property Services staff will work with local municipal staff to identify appropriate sites for facilities in those municipalities.

7. CONCLUSION

The projected 2031 Regional fleet total of 1,120 to 1,500 buses and rapid transit vehicles suggests the need for as many as seven facilities distributed geographically throughout the Region as follows:

Table 4
Transit Storage and Maintenance Facility Needs

Municipality	Total by 2013	Total by 2026	Total by 2031	Facility Capacity
Aurora/Newmarket	1	-	1	250
Markham/Stouffville	1	2	2	500
Richmond Hill	1*	2	2	250
Vaughan	1	2	2	500
TOTAL	4	6	7	1,500

* Viva Langstaff Facility

It is recommended that the Region proceed to identify appropriate sites and begin to acquire land for the purpose of constructing Regionally-owned storage and maintenance facilities based on the priorities and timelines noted in this report, subject to the preparation of an appropriate capital financial plan.

The Viva Phase 2 Business Plan and the Yonge Street EA, propose an integrated maintenance facility for YRTP/Viva bus and/or light rail services and YRT local bus services. At a minimum, a heavy maintenance facility is required at Langstaff to support future Viva operations. The development of a heavy maintenance facility at Langstaff could provide an opportunity for the Region to centralize all heavy transit maintenance functions at a single facility.

The proposed Langstaff central maintenance and storage facility is expected to be ready for occupancy in 2008-2009.

Following the opening of the Langstaff facility, the North facility in Newmarket can be made available to YRT and should be able to accommodate further YRT and Viva fleet expansions in the north until approximately 2013. The Region could utilize the North facility for the YRT fleet based in Newmarket and incorporate this into new tenders for the service in this area, thereby replacing the need for a contractor-provided facility. Once the Region constructs these permanent facilities, the Viva/YRT fleets could transition to them.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause was included in the agenda for the January 19, 2006 Committee meeting.)