

CITY OF FORT SASKATCHEWAN



Fort Saskatchewan Transit – Pilot Review Draft Report

Executive Summary

I. Introduction

To help the City of Fort Saskatchewan (the City) meet the growing travel needs of the community effectively and sustainably, a study was initiated in 2011 to examine Fort Saskatchewan's transit feasibility with respect to various routing, fare structures, local services and revenue implications.

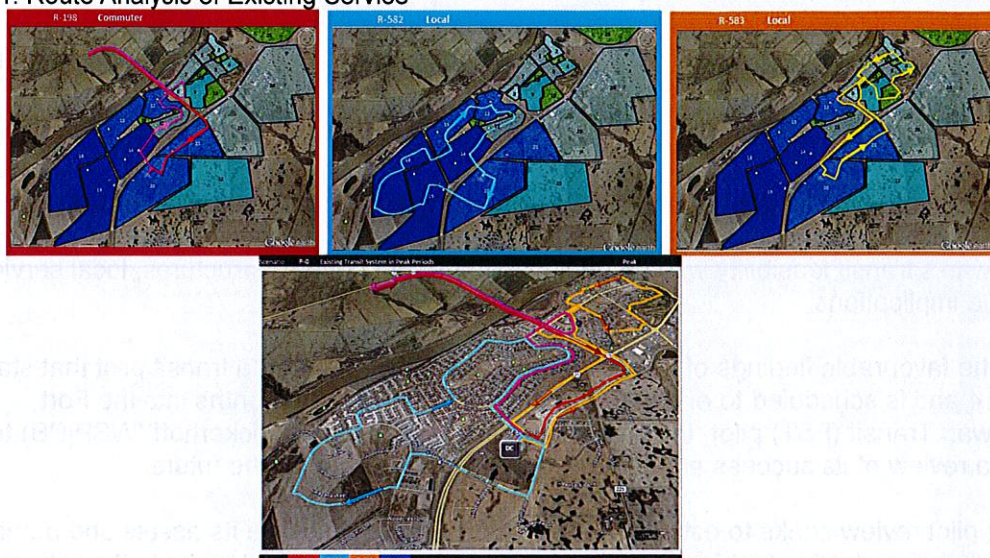
Based on the favourable findings of the 2011 study, the City endorsed a transit pilot that started in April 2014 and is scheduled to end in December 2015. Eighteen months into the Fort Saskatchewan Transit (FST) pilot, the City retained WSP|Parsons Brinckerhoff (WSP|PB) to undertake a review of its success and to devise a transit blueprint for the future.

This transit pilot review seeks to establish whether the City could utilize its assets and human capital in a more productive fashion to better satisfy the needs of transit users in the City as it continues to grow. Additionally, the review seeks to confirm that Fort Saskatchewan Transit is conducting itself in a prudent manner that demonstrates to taxpaying non-riders that the agency is both effective and efficient at providing service. The transit pilot review examines how local services, including specialized transit, are being delivered as well as a high-level review of the commuter service to the Clareview LRT station in Edmonton provided by Edmonton Transit System (ETS).

II. Approach

WSP|PB undertook the transit pilot review with a perspective that solutions must be implementable and recommendations actionable. Understanding that transit service operates in a political environment, WSP|PB continually worked with the City to carve out solutions that will be bankable and favourable to its stakeholders. The recommendations found in this report are immediately implementable and will result in a sustainable service delivery strategy. The transit pilot review examined all of Fort Saskatchewan's local service in addition to the commuter service operated by ETS.

A level of service analysis of the existing route network was completed using WSP|PB's proprietary transit analysis tool that examines origins and destinations and segregates the City into zones. Our tool analyzes various elements of the transit network for both peak (rush hour) and off-peak (non-rush hour) times of day. To produce our findings, existing route data was overlaid on the City's population and land use zones (Exhibit 1). In addition, various travel time and travel speed data were assessed between each of the zones based on the current transit routes and schedules to establish whether average travel speeds are acceptable.

Exhibit 1: Route Analysis of Existing Service

The outputs from our level of service analysis are depicted in Figure 20 to Figure 23.

Four Major Destinations in Fort Saskatchewan

Our analysis revealed there are four major destinations in Fort Saskatchewan:

- D-1 : Edmonton (Clareview LRT)
- D-2 : Fort Saskatchewan - Downtown
- D-3 : North Commercial Area (Fort Mall)
- D-4 : North-East Commercial Area (Cornerstone, Southpointe, Medical Clinic and Hospital)

Travel Speeds and Times Were Calculated

Travel speeds and times were calculated between each zone in Fort Saskatchewan to the four major destinations identified in Fort Saskatchewan. Travel speeds measure the average trip speed from each zone to reach the major destination by transit. Average travel speed and time includes the time required to access transit (walking to a bus stop for example) and the ride itself. This represents the level of access provided by the transit system.

II. Review of Existing Services

Travel time is a key component in any level of service analysis. Potential riders will look at travel times when making decisions on taking transit and therefore dictates the demand and usage of the system. The analysis of the existing transit service has highlighted a few issues that are unnecessarily prolonging transit travel times for riders.

- Connectivity within the City is often worse than connections to Edmonton. For 3 of the zones, travel times to the City's downtown take longer than to connect to Edmonton. In

general, the city-wide average for travelling downtown is 41 minutes. This is an unacceptable travel time given the size of Fort Saskatchewan.

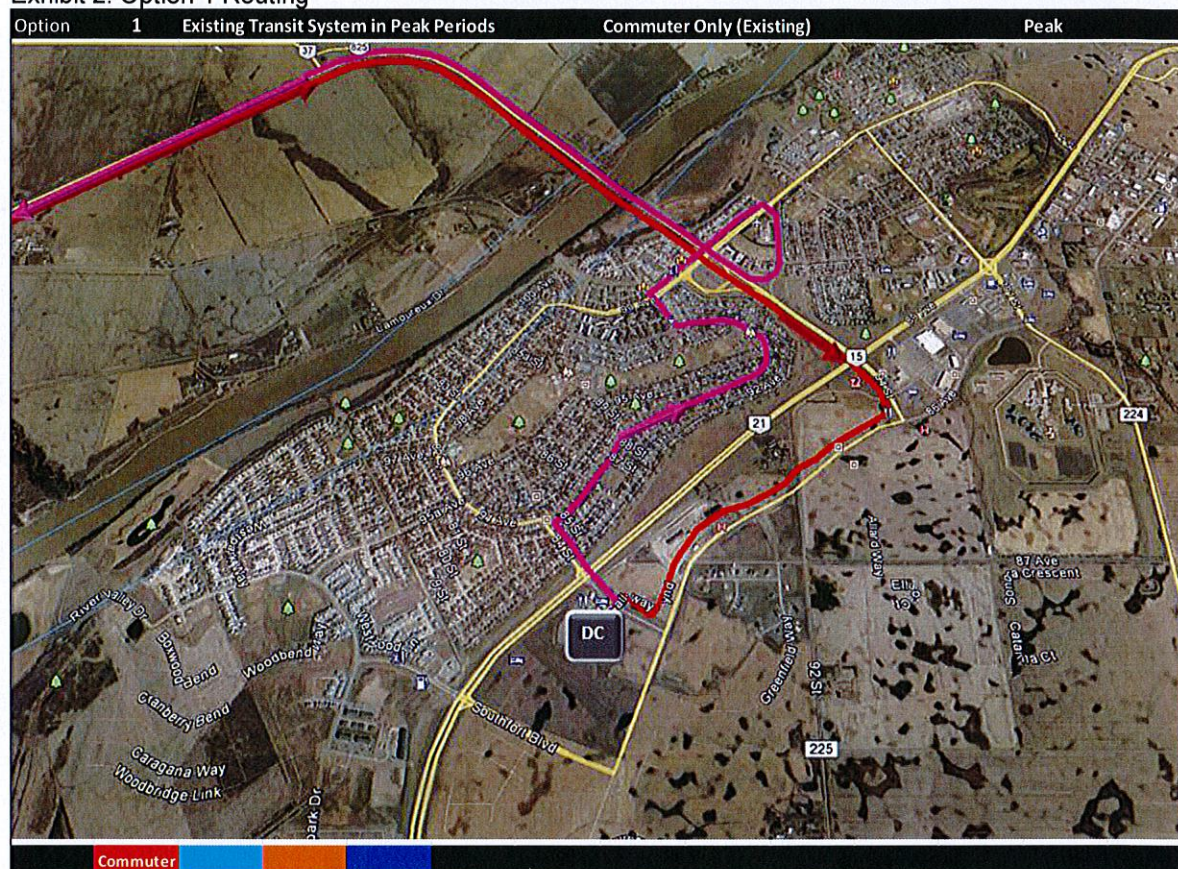
- The most populated areas in Fort Saskatchewan have poor connections to Edmonton. The most populated residential zones are located in the southwest (Westpark Drive area). Zones 14, 18, and 19 represent 39% of the City's population (depicted in dark blue). However, 2 of the 3 zones have poor connections to both Edmonton (65-69 minutes, at 20-25km/h) and the City's downtown (53-57 minutes, at 6.3-6.6km/h).
- Uncoordinated transfers add more time to transit trips. Buses arrive and depart at separate times from the Dow Centennial Centre. Transfers on the local routes sometimes require a 7 minute layover. This is unnecessary added travel time and too long given the size of the City. There are no commuter transfers, which are further inhibited by a lack of communication between FST and ETS services.

Our goal in devising transit routing options will be to increase travel speeds for the majority of the population to decrease travel times. This will be accomplished by creating more direct and faster routes for the most populated areas in the city. Greater coverage will also be necessary to serve the major destinations for City residents.

III. Summary of Recommendations

WSP|PB's analyzed three potential transit options for the City:

- Commuter Service Only (no local FST)
- Expanded Commuter Service Only (no local FST)
- Modified Existing Local Transit and Commuter Service

Option 1 – ETS Commuter Route Only**Exhibit 2: Option 1 Routing**

The first option examined eliminates local FST service and relies solely on the ETS commuter service to service local stops based on its existing alignment. This option would only provide commuter service during peak-periods. There would be no non-peak service.

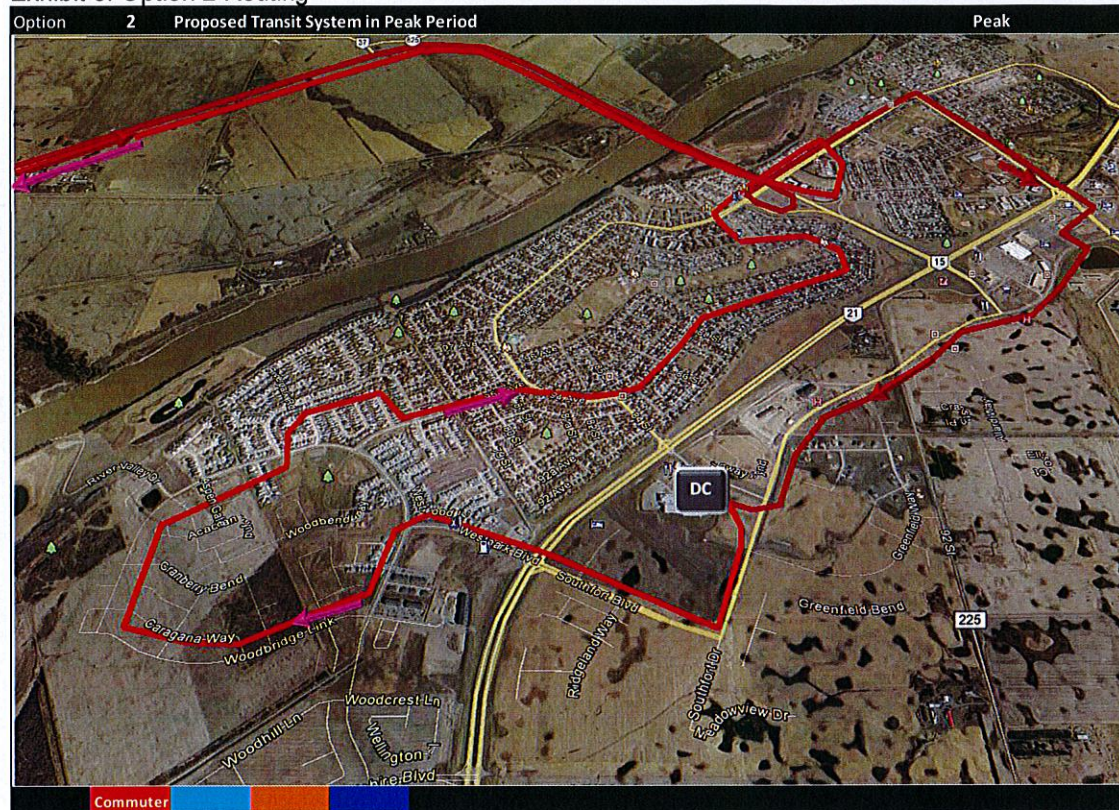
Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
\$591,500	\$98,583	16.7%	\$492,917	39,000

Summary of Option 1**Advantages**

- One seat ride from Fort Saskatchewan to Edmonton
- Estimated cost per hour: \$350 - the cheapest option.

Disadvantages

- FST service is no longer available to make local trips or connections with ETS service.
- Total transit travel times to Edmonton increases to a city-wide average of 79 minutes.
- The most populated areas in the City will not be served by the local stops along the ETS route.
- Ridership will be negatively impacted by the loss of local service.

Option 2 – Extended ETS Commuter Route**Exhibit 3: Option 2 Routing**

Similar to Option 1, Option 2 is solely a commuter-only service. However; instead of following the existing alignment of Route 198, an extended route is proposed to service the most populous northwest section of the City. This alternate alignment provides extended local coverage of Route 198 to compensate from the removal of local FST service.

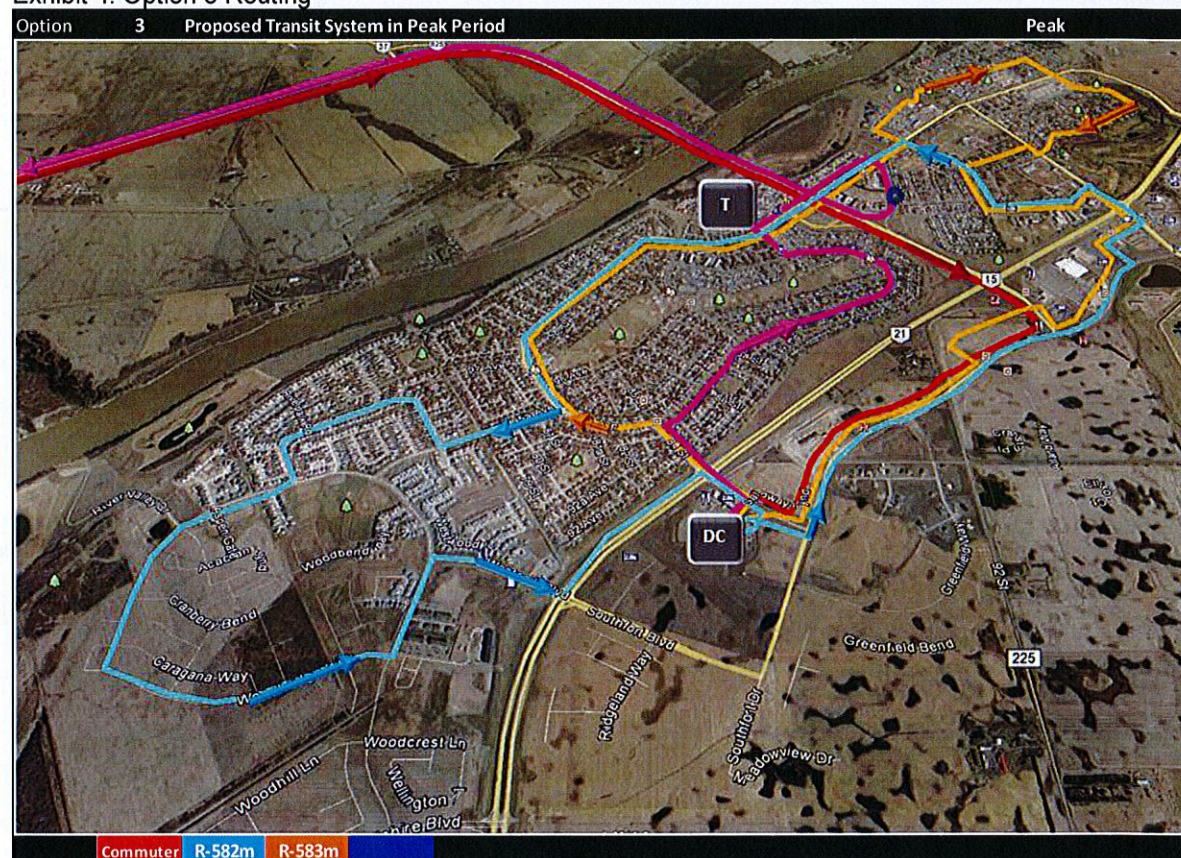
Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
\$787,150	\$123,396	15.7%	\$663,754	48,910

Summary of Option 2**Advantages**

- Expanded ETS routing within City-boundary
- One seat ride from Fort Saskatchewan to Edmonton
- Faster city-wide travel speeds (51 minutes to Edmonton)
- More populated areas of the City receive more direct service to Edmonton. May attract more riders with faster speeds to Edmonton
- Estimated cost per hour: \$467 – the second cheapest option.

Disadvantages

- Eliminates local FST service
- ETS will require more revenue service hours
 - This translates to an overall higher operating cost for the City

Option 3 –Modified Existing Local Transit and Commuter Service**Exhibit 4: Option 3 Routing**

Option 3 maintains the current commuter service with modified alignments to augment the local service.

In this option, route 582 would be restructured to provide a counter-clockwise service through both the north and south areas of the City. Major deviations from the current alignment include increased coverage north of 94th street with service through Sherridon and along Southfort Drive. This route would directly service major retail areas (Cornerstone and Southpointe) as well as the hospital to provide direct service to these popular destinations. The reversed direction of the route (clockwise to counter-clockwise) provides more direct (faster) service for the densely populated southern zones of the City to the Dow Centre compared to the existing route structure.

Route 583 would be restructured to provide a clockwise direction with extended alignment south of 94th Street. This new alignment also provides direct service to major retail and the hospital. The overlapping of the two local routes creates more direct access to/from major destinations for a greater proportion of residents, as well as two-way service, an important factor for building ridership on the system.

Annual Direct Cost	Annual Revenue	R/C Ratio	Net Cost	Ridership
\$1,153,100	\$211,153	18.3%	\$941,947	86,870

Summary of Option 3**Advantages**

- Coverage extended to major retail centres and hospital
- New local routes overlap providing 2-way service
- Travel Times:
 - Average of 27 minutes to Downtown
 - Average of 48 minutes to Edmonton
 - Average of 24 minutes to Cornerstone and Hospital
- Potential to divert specialized transit trips from Special Transport Services Society (STSS)
- Estimated cost per hour: \$530 - equals current cost

Disadvantages

- Not a one-seat ride from Fort Saskatchewan to Edmonton
 - Riders will need to transfer between FST to ETS bus

IV. Preferred Option

A summary of the projected annual costs and revenues for the options is provided in Exhibit 5. While Option 3 has the highest annual cost, it also has the highest potential to achieve the greatest cost-recovery and greatest increase in ridership.

Exhibit 5: Summary of Cost and Revenue Projections

	Existing Service	Option 1	Option 2	Option 3
Ridership	65,000	39,000	48,910	86,870
Annual Cost	\$1,153,100	\$591,500	\$787,150	\$1,153,100
Annual Revenue	\$160,153	\$98,583	\$123,396	\$211,153
R/C Ratio	13.9%	16.7%	15.7%	18.3%
Net Cost	\$992,947	\$492,917	\$663,754	\$941,947

Option 3 is recommended by the study team. Option 3 offers modified local routes with direct routing to major destinations and faster commute times. It is the preferred option as it maintains the presence of local transit service in Fort Saskatchewan at the same costs of the existing service (\$530/hour) and generates higher cost recovery and ridership with simple route modifications. The modified routing will generate greater ridership from 250 to 334 per day. Increased revenues from the ridership boost will increase the cost recovery ratio up 4.4% to 18.3%. Average travel speed is one of the main attractors for riders to the service.

Based on the foregoing evaluation criteria, option 3 offers the greatest potential for an effective, efficient and sustainable local transit service.

V. Other Recommendations

Adopt New Fare Structure

WSP|PB recommends that the City adopt a new fare structure. FST's current fare structure does not provide discounts for prepaid fare media consistent with industry best practice.

Exhibit 6: Proposed Fare Structure

Fare Product	Price	Old Price	Local	Clareview	Edmonton
Edmonton Integrated Fares					
Adult Integrated Monthly Pass	175.00	185.00	x	x	x
Student/Senior Integrated Monthly Pass	110.00	116.00	x	x	x
Commuter Fares					
Commuter Monthly Pass	90.00	96.00	x	x	
Student/Senior Commuter Monthly Pass	35.00	35.00	x	x	
Commuter Fare	5.00	3.50	x	x	
Commuter Tickets (10)	40.00	33.50	x	x	
Commuter Local Fare Add-On	2.00	-		x	
Local Fares					
Adult Fare	2.25	2.00	x		
Adult Tickets (10)	20.00	20.00	x		
Monthly Pass	50.00	-	x		
Senior Fare	1.50	1.00	x		
Senior Tickets (10)	12.00	10.00	x		
Student/Senior Monthly Pass	20.00	-	x		
Children under 12	FREE	FREE	x		
Specialized Transportation Fares					
Local	6.00	6.00	x		
Edmonton	22.00	22.00	x	x	x
Specialized Rider on Local Transit	\$1.00	\$1.00	x		

Marketing and Branding

WSP|PB recommends that the City allocate a budget for transit marketing and branding. For transit agencies the size of FST, a **minimum** of 5% should be allocated annually to marketing. This amount is consistent with industry average.

Additionally, WSP|PB recommends that the City develop a modern brand for transit to raise its profile within the community. The current paint schemes of FST's vehicles are not distinguishable and blend into the background of other privately-operated transport shuttles within the City. Similarly, FST's bus stop signage is not readily distinguishable as it often blends into the background.

Operations and Maintenance (O&M) Contract Needs to be Strengthened

WSP|PB believes that the current form of O&M contract does not adequately protect the City and should be enhanced to include performance requirements, revenue service hours and service standards. Further, the City should delineate expectations for maintenance and vehicle cleanliness regardless of ownership. We further recommend that the future form of contract be

solely for operations and maintenance, while the City retains control of vehicle purchase and ownership.

We recommend that the City utilize a non-binding Request for Information (RFI) process prior to release of a formal Request for Proposal (RFP) to generate interest and competition from firms outside of the City— this is a successful strategy that has been employed elsewhere. Last, WSP|PB recommends that the City hire a third-party firm with the appropriate expertise to write the new O&M contract for the City and support the City through the procurement process to achieve best Value-for-Money for the residents of Fort Saskatchewan.

Work with Developers

In order for transit to be successful, it must serve key destinations within the City. WSP|PB believes the current route structure does not adequately serve key destinations and riders potentially face long walks to their ultimate destinations. This is particularly true in the case of the Cornerstone shopping development where riders would have to potentially walk 500-metres to access shopping amenities.

In discussions with the City's developers, there was an indication that they are supportive of having transit service their footprints and would potentially be willing to pay for transit infrastructure (bus shelters, concrete bus pads, etc.). We believe the City should exploit these opportunities.

"Right-Size" the Fleet

FST's current high-floor fleet does not adequately respond to the needs of its potential ridership base. Individuals such as seniors, disabled individuals with mobility aids or parents with strollers are unable to access transit because of the need to traverse stairs to access FST's buses.

To widen the demographic that transit appeals to, the City needs to "right-size" its fleet selection. FST's choice vehicle should be both accessible and low-floor (no stairs to traverse). Additionally, WSP|PB recommends that the City choose a vehicle with lower operating and maintenance costs than its current fleet composition. It is WSP|PB's experience that the choice of vehicle heavily drives operating and maintenance cost.

City-Owned Fleet Drives Greatest Value

WSP|PB recommends that the City own its fleet as it provides the overall lowest total cost of ownership. Where O&M contractors provide a vehicle for service it is typical that the total cost of the vehicle is amortized over the duration of the contract term. Additionally, the O&M contract may price additional costs into the contract such as the higher cost of private sector financing, risk that their contract may be terminated early and/or additional margin for procuring the vehicles.

From WSP|PB's experience rewriting contracts for other peer agencies, City-ownership of the fleet has the greatest opportunity to reduce the hourly rate for FST. Depending on choice of vehicle, cost of vehicle ownership payback could occur as early as within the first two years.

Establish Transit Supportive Climate

In order for FST to succeed, the City must dedicate adequate resources to the start-up and ongoing management of the local transit service. WSP|PB advocates for proactive oversight of O&M contracts to ensure O&M contracts are obliging to the terms and conditions of the contract. To this end, WSP|PB suggests that one full-time equivalent (FTE) be dedicated to starting up the service from 2016 to 2017. After the service is established, half of an FTE is sufficient to oversee and administer the O&M contract.

Additionally, the City must dedicate stable, predictable funding for capital replacement and growth of the FST system.

Last, future land-use planning in the City needs to be supportive of transit. Historically, the City's residential developments have been predominantly back-fenced on major collector roads (example: Westpark Drive). Back-fenced communities are problematic for transit because residents have no easy way to access transit and may need to endure long walks to the nearest bus stop making transit unattractive. In other communities across Canada, "Transit First" initiatives have become popular for their potential to have transit installed into new developments prior to new residents moving in. WSP|PB recommends that the City establish transit-supportive policies and guidelines to ensure that new residential development is front-facing along major collector roads.