



INFORMATION REPORT

TO: Chair and Members Public Works Committee	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: November 7, 2011	
SUBJECT/REPORT NO: Quick-Wins Projects Status (PW11079) - (City Wide)	
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SIGNATURE:	

Council Direction:

N/A

Information:

In 2008, the City of Hamilton received \$29.8 million in capital funding from the *Metrolinx Quick Wins* initiative, to be used specifically for municipal capital expenditures related to the purchase of transit vehicles and the provision of infrastructure to support the HSR initiatives related to the A-Line and B-Line.

As of 2011, \$16.7 million has been utilized for:

- Vehicle Purchase Eighteen (18), 18.3m (60 ft) Low-floor articulated buses
- Engineering Survey Ground Control & Topographic mapping for design purposes
- B - Line: Photo & Mapping inventory
- A - Line: Bus Rapid Transit Feasibility Study

The remaining \$13.1 million has been allocated to the following projects:

1. Transit passenger Information Technology at the MacNab Transit Terminal
2. Park-and-Ride facility at the HSR Headquarters on Upper James Street
3. Transit Terminal at Mohawk College
4. Customer Service amenities on the A-Line and B-Line
5. Transit Priority Measures program

This report will provide information related to each of the five Quick-Wins projects mentioned above.

Transit Passenger Information Technology at the MacNab Transit Terminal

The intention of this project is to install large screens, both inside the MacNab Transit Terminal building and in strategic positions along the platform, to provide transit passengers with transit schedule information to facilitate their transit travel planning decisions.

The HSR Technology Planning team is negotiating with their Transit Scheduling software provider to determine the feasibility of integrating the HSR real-time vehicle data information with the existing customer information software. This technology integration will permit the HSR to combine the technical solutions resulting in improved and timely messages to be displayed on the new screens so that transit customers will have the most up-to-date transit information available to them for their travelling decisions and status of the bus they wish to take.

Initially, the information displayed on the screens will be the various bus schedules for the routes utilizing and providing connections at the MacNab Transit Terminal. In subsequent phases of displaying transit information, further details will be provided as additional technology is implemented, i.e. vehicle's anticipated arrival time and scheduled departure.

This type of transit customer service feature is currently in operation at Union Station for GO Bus and Trains, the VIVA Transit system in the Region of York, the MiWay Transit service in the City of Mississauga and ZUM Transit service in the City of Brampton.

HSR staff have plans to complete their negotiations, prepare the Request for Proposal (RFP) for the software and hardware and implement these customer service facilities at the MacNab Transit Terminal by Q2, 2012.

The outcome of introducing this technology will be improved HSR customer service for passengers to make travel decisions.

Park-and-Ride facility at the HSR Headquarters on Upper James Street

The intention of this project is to provide the first Park-and-Ride (PAR) facility in the City of Hamilton to permit transit passengers and commuters to drive to the facility and park their vehicle, or be driven to the facility and be dropped off, and then access the HSR transit service for the remainder of their trip. A PAR is typically located on the outer areas of a community or region, to allow commuters to leave their vehicles in a safe location and utilize the transit service and not contribute to traffic congestion on the City's main road network, particularly during peak traffic periods.

The PAR promotes the use of public transit by permitting the commuter to park their vehicle in an area outside the urban core and not contributing to traffic congestion, reducing parking demand and improving air quality.

The proposed facility on Upper James Street at the HSR Headquarters is beneficial for several reasons:

1. No land purchase is required. A suitable area currently exists in front of the HSR building and is available for this use.

2. This area was identified in the Airport Expansion Growth District (AEGD), Transportation Master Plan as an ideal location for a PAR and will support many of the AEGD transportation mitigation goals and objectives.
3. In conjunction with the construction of a PAR in this location, an opportunity to improve current on-site vehicle movements and a stormwater management issue can be resolved by providing the proposed facility.
4. Promotion of transit use in the urban area of the City.
5. Supports the goals and objectives approved in the City's Transportation Master Plan (TMP) and Transportation Demand Management (TDM) initiatives.

At the present time, the design of the centre left turn lane on Upper James Street in front of the HSR headquarters has been completed and will be tendered and under construction in Q2 2012.

For the stormwater management issues and the design of the PAR for transit vehicles and passengers, the detailed design phase will continue for the remainder of 2011, with tender documents completed early in 2012.

The construction of the PAR and stormwater facilities will take place during the summer of 2012 when there are a reduced number of transit vehicles that would be impacted by the construction and the facility will open in Q4 2012.

The outcome of providing the City's first Park-and-Ride facility will be to provide convenient parking for HSR passengers, with the goal of increasing ridership on not only the A-Line but other HSR routes.

Transit Terminal at Mohawk College

A Transit Terminal is proposed to be included in a mixed-use building constructed by Mohawk College on the southwest corner of Fennell Avenue and West 5th Street that will incorporate a new HSR transit facility at the Mohawk College campus. HSR transit services presently exist on the Mohawk College campus, but there has been a desire to focus the mountain transit services at the campus and to take advantage of the new St. Joseph's Hospital facility across the street that will bring many more transit passengers to and from this area. The HSR is planning to utilize the new Transit Terminal at Mohawk College to provide customer service amenities and coordinate a variety of transit routes on the mountain in a convenient location for transfers along with the A-Line service.

In Report PW11036, dated May 16, 2011, and approved by Council on May 25, 2011, the recommendation to proceed with the negotiations of agreements and participate with the mixed-use/multi-modal facility at Mohawk College was based on:

- The project aligns with the transportation policies and strategic directions of the City.
- The project supports the HSR's service objectives and provides for a transit focus for the A-Line and other transit services on the mountain.
- The project provides improved and convenient passenger transfer facilities. Large screens with transit information are also planned for this site similar to what will be provided at the MacNab Transit Terminal, previously described.

- The project places an emphasis on public transit intended to result in increased transit ridership as outlined in the City's Transportation Master Plan for both Mohawk College and the expanded St. Joseph's Hospital across the street.
- The project supports continued direct transit service to Mohawk College, coordinates with Mohawk College's U-Pass program and the College's plans to reduce single-occupancy vehicles and parking included in their Campus Master Plan.

Mohawk College is progressing with the implementation of projects related to its Campus Master Plan. Several key initiatives of which relate to transportation, include:

- The introduction of the U-Pass program (an HSR transit pass available to all students during the school semesters which is similar to the U-Pass currently available to McMaster University students).
- Provision of a new, transit-only, internal roadway (included in the mixed-use/multi-modal building) to be used by HSR.
- Exploration of other Transportation Demand Management (TDM) initiatives to encourage active transportation modes along with carpooling service to support the ultimate goal of reducing the use of single occupancy vehicles (SOV) as a transportation mode to and from the campus.
- Providing a Secure Bicycle Parking Facility on Campus.
- Changes to its parking operation to make alternative forms of transportation to and from the campus more attractive.

Other issues being coordinated at this location include:

- The timing of the mixed-use building aligns with proposed capital works improvements planned for West 5th adjacent to the College.
- That a proposed new traffic signal on Fennell Avenue, west of West 5th Street will provide transit priority for HSR vehicles exiting the site. The new traffic signal will be interconnected with the existing traffic signal at Fennell Avenue and West 5th Street for additional priority for transit vehicles.

At the present time, Mohawk College has undertaken their Site Plan application for the proposed mixed-use building. A rezoning process is also required to allow for the facility to be utilized.

The Transit Regulation EA process under the Environment Assessment Act was utilized to undertake a detailed study regarding the provision of this Transit Terminal facility. A Public Information Centre (PIC) was advertised and held on June 9, 2011, at Mohawk College. There were 15 people who attended the PIC. This process is now complete.

The project schedule currently reflects commencement of construction during the early spring of 2012 with completion by Q4 2013. The City's reconstruction plans for West 5th and other related road adjustments related to the HSR operations at this site will commence in the spring of 2013 and be completed by Q4 2013.

The outcome will be a focussed transit terminal facility for HSR routes on the mountain, including the A-Line, improved passenger amenities to further promote transit ridership to Mohawk College and the new St. Joseph Hospital facility across the street.

Customer Service amenities on the A-Line and B-Line

At the time of preparing this report, StatsCan published a report, based on a 2010 survey, stating that 82% of commuters report driving to work with travel times in excess of 45 minutes. The survey also mentioned that many commuters have tried public transit but due to inconvenience, weather conditions, travel time, etc., they would continue to drive their vehicle to work and sit in traffic. One way to encourage more transit ridership is to provide improved facilities for passengers while they wait for public transit. This includes shelters, benches, waste receptacles, bike locking facilities and transit information.

Initially, the Customer Service amenities project dealt with replacing existing bus shelters and related facilities along the A and B-Line with newer, upgraded passenger shelters/facilities. Once the investigation commenced, staff determined that an increased bus stop “makeover” was in order to highlight the A and B-Line stop locations, i.e. provided better concrete pads and surfaces surrounding the site for improved access, i.e. urban Braille, increased street lighting adjacent to bus stops, better waste receptacles with the City’s 3-stream bins, a “butt stop” containers for cigarette butts instead of being thrown on the ground and a secure place to lock bicycles and encourage multi-modal transportation options.

Many area transit services are changing their image including the bus stop locations, i.e. “VIVA” in York Region, “MIWAY” in Mississauga and “ZUM” in Brampton. These transit services have undertaken a new branding program to highlight their services including their Rapid Transit stop locations. HSR is not re-branding its service, but will utilize the Quick-Wins funds to up-grade the A and B-Line Stops in 2012. This will include adding some new locations while reducing a few others.

Although no specific design work has been initiated for the key B-Line bus stops, each location will be evaluated to include:

- New shelters
- Transit schedule information
- New concrete pad and adjacent sidewalk to improve accessibility, i.e. urban braille
- Interior and exterior benches
- Consideration of improved street lighting
- Waste receptacles and butt stop containers
- Bike locking facilities

In some of the existing bus stop locations in the downtown core, space for these facilities is limited. In these cases, if the bus stop is essential, land purchase or easements may be required. Unfortunately, land purchasing is not eligible under the Metrolinx Quick-Wins terms; therefore, this type of change will be kept to a minimum.

The proposed bus shelter facilities will be designed to be attractive, comfortable and highlight the area and the transit services available. The timing would be that the design, manufacturing and site preparation work will be done during the fall of 2011 and winter/spring of 2012 with install on the B-Line during the fall of 2012. The A-Line

facilities would follow the completion of the B-Line and would be completed in the spring of 2013. All the facilities will be AODA compliant.

Transit Priority Measures Program

The goal of providing Transit Priority Measures (TPM) to public transit vehicles is to emphasize that public transit vehicles should receive the benefit of getting to their destination as quickly as possible, to provide passengers with schedule adherence/reliability and to provide an efficient transit service, i.e. the least number of transit vehicles/drivers to meet the service levels.

TPM's can take many forms including:

- Technology to adjust traffic signals timing and provide transit vehicles with green lights, or less delay at signalized intersections.
- Bus bays and/or Queue-jump lanes for transit vehicles to manoeuvre around traffic and get ahead of other traffic.
- Prohibit turning vehicles at intersections/driveways that restrict transit movement.
- Prohibit parking/stopping that restricts transit movement.

The issue of Transit Priority was also recently referred to in the *“Conventional, Rapid Transit and Inter-Regional Transit: Technical, Financial and Land Use Considerations (CM11016/PW11064/PED11154/FC11072) Report*, dated October 13, 2011, concerning the concept of dedicated transit lanes to help avoid the effect of traffic congestion (Page 6).

The ultimate transit priority arrangement is to provide dedicated lane(s) or right-of-way so that transit vehicles operate in an unobstructed corridor. In urban environments, such dedicated areas are very difficult to accommodate. However, hybrid versions of priority lanes, utilize existing lanes are an option that could be considered.

Staff reviewed what TPM options could be considered on the A and B-Lines to provide this priority to transit. The outcome of their review indicated that there were limited opportunities in the core areas to provide the bays or queue-jump lanes and the cost of technology would be extremely high as all the transit vehicles and traffic signals would have to be outfitted with the technology/equipment to implement the priority features. When the calculations and analysis were completed, the results indicated that a limited benefit was actually being provided to transit vehicles, and in many cases there was increased delay to the others vehicles utilizing the intersections. A cost-benefit review indicated that the proposed expenditure on construction and technology did not result in a tangible benefit to transit.

Phased TPM Pilot Program on King Street

At this time, the only TPM that staff would recommend for consideration on a phased pilot basis is the exclusive use of the north curb lane on King Street, from John Street to Bay Street. Other municipalities that have introduced this type of TPM include Quebec City, Toronto and Ottawa. Cambridge, Ontario has identified this type of TPM and will be in their detailed design phase later this year.

A proposed phased TPM pilot is being recommended for consideration to test the benefit of an exclusive Transit-Only lane on King Street in the downtown area. Currently, for the majority of the day, this curb lane is already being utilized by HSR vehicles and other public transit vehicles. The phased one-year pilot would include formalizing this operation for the curb lane's exclusive use by public transit vehicles and restricting all other traffic to utilize the other traffic lanes on King Street.

Recently, there have been examples of the impact as a result of the elimination of traffic lanes on King Street. The new Good Shepherd Centre, 398 King Street West, has been under construction for more than a year. The construction activity required the elimination of the northerly curb lane throughout. Staff observed this situation and determined that there were no significant traffic impacts as a result of this loss of the northerly curb lane in this area. Another example this summer was the Highway 403 Ramp construction projects, whereby traffic lanes on King Street were also unavailable for long periods of time with no significant impacts to the traffic flow. It is recognized that these lane closures were included during the summer months when traffic is lighter than usual, however, it is felt that the lane restriction closures provided a real-life example in those areas of the City, and the Transit-Only Lanes will also be an important test of a TMP.

The anticipated benefits from the TPM pilot include:

- Speed and reliability of the transit service depends on separating buses from general traffic lanes to improve the transit vehicles running time.
- Will promote transit operations and support increased transit ridership.
- Schedule adherence.

The concept of a "Transit-Only lane" will be new to the City and therefore, staff is recommending the implementation of a phased pilot-process to test the concept and its functionality. The first phase of the Transit-Only lane pilot will include:

- The north side of King Street from John Street to Dundurn Street. This section has been selected as the HSR and other public transit services utilizing this area extensively.
- The Transit-Only lane restriction would be in effect from 7:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 6:30 p.m., Monday to Friday. Outside of these hours, the current parking, loading and other activities would be permitted to continue.

With the introduction of the first phase of a Transit-Only lane on King Street from John Street to Dundurn Street, the following operational issues will require further consideration prior to implementation:

- Restricting on-street parking spaces during the traffic peak period 7:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 6:30 p.m., Monday to Friday.
- Restricting taxi's waiting for fares in this lane.
- Restricting delivery vehicles in this lane
- Prohibition of right-turns off King Street at a number of intersections during the traffic peaks of the day, Monday to Friday, including:
 - Hughson Street

- James Street
- Locke Street

The right-turn restriction may be seen as being counter-productive to the on-going two-way conversion program; however, staff believes that there are other opportunities for traffic to make these turning movements. If the turns are allowed to continue, transit vehicles will often get caught behind the turning traffic and receive no benefit that the separate lane intends.

- Appropriately spaced “Diamond” symbol pavement markings in the curb lane to indicate that the lane is for the exclusive use of public transit vehicles, consistent with the Ontario Traffic Manual, (OTM) Book 11.
- Appropriately spaced Overhead or side-mounted pole signs indicating that the northerly curb lane is for “Transit Vehicles Only”, consistent with the OTM Book 5 Guideline of approximately every 300m.

With the potential implementation of Light Rail Transit (LRT) in the future, consideration should be given to providing public transit with a higher profile, particularly the B-Line and other key transit routes on King Street.

The allocation of the northerly curb lane on King Street between, John Street to Dundurn Street, in the first phase of the pilot program will provide the exclusivity that Rapid Transit requires with the dedication of their own travel lane. The pilot will demonstrate the benefit transit should receive and also any impact to the traffic flow on King Street as a result of the “northerly curb lane only” for public transit vehicles.

Following the first phase of the pilot, options for subsequent phases will be brought forward to the committee for consideration. Additional pilot areas would allow staff to continue to observe and analyze any impact to King Street and surround streets as a result of the Transit-Only Lane during the peak traffic periods and restricting parking, loading and right turns from King Street.

Subsequent phases could include further restrictions to parking, loading, turning movements at selected intersection to provide a truly exclusive Transit-Only lane.

Staff would report back to Council prior to implementing any subsequent phases beyond the first phase described above.

As with any change to traffic operations, a public communication plan will be required to explain where the Transit-Only Lanes are located and what the public is expected to do with respect to not driving/stopping/parking in the northerly curb lane and where they are permitted to turn right off King Street.

Experience from other municipalities illustrates the need to have regular police and parking by-law enforcement patrols in the TPM area to ensure that vehicles are not blocking the transit vehicles.

The advantage is a continuous lane for transit at relatively low cost (signs and markings).

The disadvantage is the loss of parking during the peak traffic periods of the day which may be seen as a disincentive to local businesses. This would form the basis of the

evaluation following the pilot period to identify the benefit to transit versus the impact to local business.

It is anticipated that the implementation of the phased TPM pilot program would start in the summer of 2012, along with a public communication campaign including providing information to residents and businesses along the affected section of King Street, the installation of signs and pavement marking, the removal of parking meters. Once these implementation details are confirmed, staff will provide this information to Committee and Council prior to implementing the pilot.

TMP at Mohawk College

Earlier in this report, the Transit Terminal project at Mohawk College was described. A new traffic signal will be installed on Fennell Avenue at Mohawk College, west of West 5th Street, where a new driveway for Transit-vehicles will enter Fennell Avenue. The new traffic signal will be interconnected to the existing traffic signal at Fennell Avenue and West 5th Street in order that transit vehicles leaving the Transit Terminal will not only be given priority to enter onto Fennell Avenue, but will also be given priority at the intersection of Fennell Avenue and West 5th Street to travel northbound, eastbound or southbound on West 5th.

Relevant Policies

The City of Hamilton has numerous policies and plans in place that support Rapid Transit in Hamilton. A few of the key documents are outlined below:

Provincial Policies

- Regional Transportation Plan - BIG MOVE (November 2008) for the GTHA
- MoveOntario 2020
- Places to Grow

Hamilton Plans/Policies/Visions

- Corporate Strategic Plan
- Public Works Strategic Plan
- Communities
 - Focusing transit at this key-destination
- People
 - Improving transit accessibility, particularly convenient for Mohawk College students and St. Joseph's Hospital staff and visitors
- Processes
 - Supports Mohawk College's Campus Strategic Plan with transit
 - Relates to A-Line services
- Finances
 - Increasing HSR Ridership
 - City portion funded through Metrolinx Quick-Win Reserve Fund
- City of Hamilton Official Plan
- Transportation Master Plan (TMP)
- Growth Related Integrated Development Strategy (GRIDS)
- Vision 2020

- Hamilton Transit Ridership Growth Plan
- Air Quality and Climate Change Strategic Plan
- Corporate Energy Policy
- Skilled, Innovative & Respectful Organization
 - More innovation, greater teamwork, better client focus
 - The collaboration of the Rapid Transit and Strategic Planning sections to deliver the Quick Win projects supports teamwork
- Financial Sustainability
 - Financially Sustainable City by 2020
 - Effective and sustainable Growth Management
 - Delivery of municipal services and management capital assets/liabilities in a Sustainable, innovative and cost effective manner
 - Generate assessment growth/non-tax revenues
 - Sustainable Tri-parti Government Agreement
- Social Development
 - People participate in all aspects of community life without barriers or stigma
- Environmental Stewardship
 - Aspiring to the highest environmental standards
- Healthy Community
 - Plan and manage the built environment
 - Adequate access to food, water, shelter and income, safety, work, recreation and support for all (Human Services)