


Halifax Regional Council
April 7, 2009

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: 
Mike Labrecque, Director, Transportation and Public Works

DATE: March 20, 2009

SUBJECT: **Bikeway Implementation**

INFORMATION REPORT

ORIGIN

Item 10.3 raised at the November 18, 2008 meeting of Halifax Regional Council. MOVED by Councillor Mosher, seconded by Councillor Johns that staff provide a report outlining an implementation strategy, indicating associated costs and specific timeframes, for adding Bike Lanes to Main Arterial Roads as set out in the Bike Lane Master Plan.

BACKGROUND

Councillor Mosher advised that Council previously approved a Bikeways Master Plan but not a financial strategy to implement the Plan. She felt Council needed an overall strategy that clearly detailed the necessary actions for implementation and wanted to see funds set aside every year, over a reasonable timeframe for the implementation of short, medium, and long term priorities.

Councillor Hendsbee requested that the report also address the following:

- Consideration of incorporating bike lanes when carrying out road upgrades and road widening;
- Bike lane projects on provincial roads;
- Consideration of the report prepared by Bicycle Nova Scotia (BNS) regarding Nova Scotia Bikeways.

Councillor Mosher noted that Council has removed funding from shoulder repairs throughout HRM, and this has an impact on access for not only bicycles but pedestrians. She asked that the report also look into the aspect of shoulder paving and repairs.

DISCUSSION

The Blueprint for a Bicycle Friendly HRM (the 'Bike Plan') was approved in principle by Regional Council in 2002. The plan outlined priority routes for the establishment of bicycle facilities and suggested Council allocate a minimum of \$300,000 per year to developing bikeway infrastructure. The recommended funds were also intended to be used for 'support facilities' such as the provision of bicycle parking, publishing the bike map, as well as promotional materials like posters, brochures, ads, etc. The plan did not carry out detailed design to determine which solutions would best suit particular routes, anticipating that this would be done by staff or consultants in consultation with the newly formed Bikeways Advisory Committee formerly the Active Transportation Advisory Committee and subject to budget decisions made by Council on an annual basis.

In 2006, Regional Council approved a more inclusive Active Transportation Plan (AT Plan), which looked at the needs of all active modes of transportation, including bicycling as well as walking, in-line skating, etc. The Active Transportation Plan also identified a number of roads as priority routes for the establishment of bicycle facilities (with a few exceptions, many were the same as those identified in the Bike Plan) and suggested spending of nearly \$1,000,000 per year over a twenty-year period would be required to accomplish the on-road bike lanes, paved-shoulder bike lanes and signed-only routes suggested by the plan (AT Plan, Exhibit 5.4). This figure did not include any funds for retrofitting existing urban streets with bicycle lanes at an estimated cost of \$460,000 (2005 dollars) per kilometer. The AT Plan suggested that this would only be done in conjunction with other roadworks such as widenings, curb replacements, and major water or sewer works.

Work carried out over the past few years has shown that the Bike Plan's recommended annual budget of \$300,000 per year will not accomplish much in the way of retrofitting existing streets. For example it costs almost \$80,000 to pave one kilometer of shoulder (one side of the street) and where sections of curb retrofits are required, this figure can jump to about \$400,000 per kilometer, as suggested in the AT Plan.

Both the Bike Plan and the AT Plan were intended to be flexible so that HRM could adapt to changes and opportunities as they arose. Opportunities include cost sharing with other levels of government and 'piggybacking' on road maintenance projects by extending their scope to include bike facilities when possible. 'Piggybacking' bike infrastructure on other projects has the added benefit of reducing the per unit costs associated with bikeway development. For example, work on the Sackville Drive bike lane was accomplished for \$46,000 per km because it was carried out in conjunction with a large scale capital project involving the construction of water and sewer services. While both plans identified on-road candidate routes for the establishment of bicycle facilities, neither plan was done to the level of detail necessary to establish what the best type of facility for that street might be, and what the costs of developing that facility would be.

Determining which type of facility is best on every bike route street is a large body of work that requires detailed surveys of every street (curb, lane markings, signals, signage), site visits, traffic counts, and possibly more. Once all the base information is assembled, design options must be developed, reviewed, and costed before a design solution is finalized. This work has not been

carried out to date on all of the identified priority routes for the development of bikeway infrastructure. Consequently, staff is not in a position to provide Council with definitive plans, including cost estimates and specific time frames, for the implementation of bicycle facilities on all the roads identified in the Bike Plan and the AT Plan. To-date, staff involved with planning on-road bikeway infrastructure has been primarily involved in reviewing upcoming capital and maintenance work to ensure that opportunities are not lost for 'piggybacking' (refer to the accomplishments stemming from this approach, below).

Having said that, the Bikeways Advisory Committee (BAC) has previously identified several routes as priorities for spending including the Bedford Highway, Herring Cove Road, St. Margaret's Bay Road, Purcell's Cove Road, Kearney Lake Road and Hammonds Plains Road. Several pieces of cycling infrastructure have already been built on these identified priority routes, and more sections will be completed in the future as budget allows. Staff has further identified a number of areas as good candidates for more detailed review and hope to examine as many as possible, and develop options and cost estimates for implementing bicycle facilities on these routes, in the coming year:

Mainland North

- Bedford Highway between the Fairview Overpass and the start of the bike lane at Kearney Lake Road;
- Dunbrack Street from the Bicentennial Highway to Kearney Lake Road.

Mainland South

- Remainder of William's Lake Road (one section already has a bike lane on one side);
- Purcell's Cove Road from William's Lake Road to the Roundabout;
- Herring Cove Road inbound and outbound from William's Lake Road.

Bedford/ Sackville

- Bedford Highway between Southgate and Meadowbrook Drive (detailed design complete);
- Kearney Lake Road from Belle Street to Blue Water Road;
- Bluewater Road from Kearney Lake Road to Hammonds Plains Road;
- Old Sackville Road from Bedford-Sackville Greenway to the start of the bikelane on Sackville Drive;
- Glendale Drive from Cobequid Road to Beaver Bank Road.

Dartmouth

- Main Street outbound from Panavista Drive;
- Burnside Drive from Highway 111 to Commodore (detail design and cost estimate presently being carried out);
- Pleasant Street/Main Road from Woodside Ferry Terminal (trail terminus) to Hines Road.

Peninsular Halifax

- Fairview overpass including possible bikeway connections to the Bedford Highway, Seaview Park, and the HUGA Trailhead (consultants are currently engaged to study options);
- Continuation of the South Park Street bike lane;

- Barrington Street between the Macdonald Bridge and Seaview Park;
- Connaught Avenue from Windsor Street to Jubilee Avenue.

Once surveys have been completed for each corridor, a design solution will be formulated, with associated costs. These will be reviewed by the Active Transportation Advisory Committee prior to budget recommendations coming forward to Council.

Implementation

An implementation strategy for the capital funding of bicycle facilities on arterial roads would consist of two facets:

- 1/ Funds should be available to carry out upgrades to improve cycling conditions on existing roads identified as bike routes when they are undergoing regular maintenance. If existing roads can be upgraded to the current 'Red Book' standard when undergoing regular maintenance, HRM will be able to develop a patchwork of bike friendly sections of streets. The drawback of this approach is that it will leave gaps in the cycling network which won't be addressed until those gap sections are ready for regular maintenance or upgrades. Annual budgets for regular road upgrades will need to be increased in order to implement this without impacting the amount of road which is repaired or upgraded every year and causing further declines in the Surface Distress Index (SDI) of HRM streets.

For 2009 Design and Construction have incorporated paved shoulders in a number of projects for this coming year. It is anticipated that an additional \$200,000 to \$300,000 will be confirmed through the final budget process. The funds will be incorporated in the paving program for Active Transportation infrastructure on such roads as Horseshoe Drive, Purcell's Cove Road, Herring Cove Road, etc. to the extent possible.

- 2/ Funds should also be available for projects which fill the gaps and connect sections that have been upgraded through implementation of #1 above. These works may be more costly (because they will be stand-alone projects that don't benefit from the economies of scale associated with larger projects) but will ultimately result in continuity and connectivity in the bikeway network.

The proposed budget has allocated \$500,000 in the Active Transportation Plan Implementation account CTU00420 for Active Transportation infrastructure. These funds will be used to implement bike lanes to complete sections such as the Bedford Highway. Some of these funds will also need to be used to continue to improve support facilities for cycling such as the provision of bike parking, route maps, as well as promotional and educational materials and events.

Flexibility in the identification of which projects to spend on will be necessary in order for staff to best take advantage of opportunities to coordinate infrastructure development with other departments. Consistent funding will be important because it will allow staff opportunities to apply for grants from other levels of government or agencies, when such opportunities arise, in order to

leverage those funds allocated by Council.

Council will also need to consider further policy issues prior to establishing bicycle lanes on some arterial streets. These policy issues concern the presence of on-street parking on many routes identified as preliminary on road candidate routes on Peninsular Halifax, and in Dartmouth within the Circumferential Highway. On-street parking presents a challenge to the establishment of bicycle lanes on those roads because of the lack of lane width and the hazard parked vehicles present to cyclists travelling along those corridors due to the risk of being struck by opening car doors. Implementing a policy and a process to consider removal of on-street parking in favour of the establishment of bicycle lanes will assist in providing bike lanes in existing neighbourhoods, at relatively low cost. A policy framework, as well as a process for consideration of such matters, including community consultation, is expected to be before Council following the adoption of a broader parking strategy for HRM.

Other Matters

At their November 18, 2008 meeting, Council requested that this staff report also provide comment on the following:

- Incorporating Bike Lanes When Carrying out Road Upgrades and Road Widening
- Bike Lane Projects on Provincial Roads
- Bicycle Nova Scotia Report
- Shoulder Paving Budget

Incorporating Bike Lanes When Carrying out Road Upgrades and Road Widening

With the exception of a few projects, as noted below, “piggybacking” on existing roadworks is the way that much of HRM’s on-road bicycle infrastructure has been built in the last two years:

2008 Projects

- Bike lane on Bell Road from Robie Street to Trollope (one side only, 0.3km); *stand alone.*
- Bike lane on Bell Road from Trollope to Sackville Street (both sides, 1 km); *partially stand alone, but some coordination with Ahern/Bell intersection realignment to ensure on-street space was made available.*
- Bike lane on South Park Street from Sackville Street to University Avenue (both sides, 1 km): *carried out in association with a pavement microsurfacing project.*
- Bike lane on Hammonds Plains Road from Hwy 102 Ramps to Innovation Drive (both sides, 1 km): *carried out in association with road widening project.*
- Bike lane on Main Street from Ridgecrest Drive to Caledonia Road (both sides, 4.2 km): *carried out in association with Main Street pavement improvement project.*
- Paved shoulder bike lane on Purcell's Cove Road from Burns Drive to Wenlock Drive (both sides, 2.2 km): *carried out in association with the micro and resurfacing projects.*
- Bike lane on Windsor Street from Bayers Road to Maxwell Street (both sides, 1 km): *carried out in association with pavement renewal project.*

2007 Projects

- Bike lane on Sackville Drive from Lucasville Road to Lively Road: *carried out in association with major water & sewer work.*
- Paved shoulder bike lane on St. Margaret's Bay Road from Northwest Arm Drive to Prospect Road: *cost shared with Municipal Operations shoulder rehabilitation project.*
- Bike lane on Old Sambro Road from MacIntosh Run to Sussex Street: *carried out in association with the resurfacing project.*
- Bike lane on Williams Lake Road from Purcell's Cove Road to Civic #49: *cost shared with Municipal Operations shoulder rehabilitation project.*
- Bike lane Westwood Boulevard from Hemlock Drive toward the St. Margaret Centre: *stand alone bike lane project carried out by Strategic Transportation with "Green Mobility" funding.*
- Hemlock Drive from Westwood Boulevard: *stand alone bike lane project carried out by Strategic Transportation with "Green Mobility" funding.*
- Main Street (Dartmouth) from Ridgecrest Drive to Brigadoon Avenue: *carried out in association with Main Street pavement improvement project.*
- Commodore Drive from Spectacle Lake Drive to John Savage Avenue: *carried out in association with the roadway extension.*
- John Savage Avenue from Commodore Drive to Wright Avenue: *carried out in association with the roadway extension.*
- Kearney Lake Road from the old Halifax City Limits to the Highway 102 ramps: *stand alone bike lane project.*

Bike Lane Projects on Provincial Roads

Many of the roads identified as priorities for the implementation of on-road bicycle facilities in the Bike Plan and the AT Plan are provincially owned and maintained. In 2008, the Provincial Department of Transportation and Infrastructure Renewal (NSTIR) constructed 16 kilometers (8 km, both sides of the road) of paved shoulder bike lane on the Prospect Road beginning at St. Margaret's Bay Road. Discussions with staff at the provincial level revealed that NSTIR chose this route because it had been identified in HRM's Bike Plan and AT Plan, and it connected with another paved shoulder bike lane on St. Margaret's Bay Road. It is hoped that coordination on this level will continue. For example, HRM staff has recently met with NSTIR to ensure provision of some AT infrastructure is included when the province replaces a structure on the Fairview Overpass this summer. Also, a staff position at the provincial level has recently been expanded to include the delivery of policy and programs to support sustainable transportation initiatives.

Bicycle Nova Scotia Report

Bicycle Nova Scotia (BNS) recently commissioned a report entitled: "*Nova Scotia Bikeways: Scoping the Blue Route - Infrastructure, Inventory, Route Mapping, and Feasibility of Implementation for a Provincial Bikeways Network.*" The report was prepared by Eastwind Cycle, a bicycle touring and consulting firm. Based on the success of Quebec's 'Route Verte', the report examines the opportunity to create province-wide cycling network using a combination of trails, paved shoulders, and signed routes to enhance cycle-tourism as well as active transportation in NS.

The report speaks mostly to the use of provincially owned and maintained roadways to connect destinations within the province. A well-established bike network in HRM will allow this municipality to become the hub of the envisioned provincial tourism and transportation network.

Shoulder Paving Budget

Municipal Operations currently has a shouldering program where millings (recycled asphalt) or Class B gravels are used to secure the shoulder areas. The extent of this program is limited and in 2008/09, the amounts allocated for such upgrades included \$120,240 for the Eastern Region, \$135,332 for the Western Region, and \$179,412 for the Central Region.

New asphalt is typically not utilized for shouldering unless identified as a bike lane through the Bike Plan. As previously indicated this too is limited, and no funds were allocated in the bike lane budget in the 2008/09 capital program. As discussed above, staff is aware of the importance of constructing a bike lane particularly when a section of road is being upgraded with new asphalt and staff recognize that in some locations the paved shoulder section can be of benefit to pedestrians as well.

It should be noted that not all shoulders can be easily upgraded with asphalt. In locations where there is limited shoulder width combined with a drainage ditching system, staff does not recommend full pavement to the edge of the ditching system. Extending asphalt too close to existing ditches can present a safety problem for motorists, and create a situation where the asphalt may readily become undermined necessitating frequent maintenance. Ideally there should be enough space to maintain an acceptable width for shoulder gravels beyond the area of shoulder to be paved for accommodation of the bike lane/sidewalk area.

Traffic & Right of Way staff take every opportunity to coordinate shoulder upgrading with bikeway infrastructure. For example, St. Margaret's Bay Road was upgraded over a two year period in conjunction with shoulder upgrades to provide designated bike lanes. Where applicable, the same approach is always considered.

BUDGET IMPLICATIONS

There are no budget implications at this time. Bikeway projects will be subject to the regular annual capital budget process.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

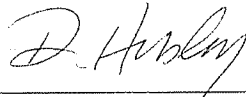
ALTERNATIVES

There are no alternatives proposed at this time.

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

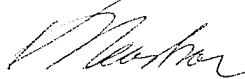
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