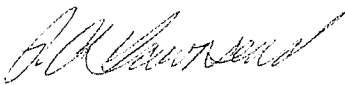




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Transportation Standing Committee
October 27, 2011

TO: Chair and Members of Transportation Standing Committee

SUBMITTED BY: 
Philip Townsend, Director, Planning & Infrastructure

DATE: October 4, 2011

SUBJECT: Highway 107 Extension: Phase 1 – Traffic Study

INFORMATION REPORT

ORIGIN

At the August 11, 2011, meeting of Northwest Community Council, a status update respecting Highway 107 Bedford/Burnside Bypass was requested from the Transportation Standing Committee and HRM staff.

BACKGROUND

The extension of Highway 107 from Burnside to Sackville has been a planning consideration for several years, as traffic volumes and subsequent congestion on Trunk 7 (Magazine Hill) have increased steadily. With current traffic volumes on Magazine Hill exceeding 40,000 vehicles per day, the Highway 107 extension (also known as the "Burnside Connector") is now warranted and is in the implementation stages. The first phase of the project, a 4-lane controlled access highway between Akerley Boulevard and Duke Street, is expected to be completed by the Province in fall 2013. Subsequent phases, including direct links to Highways 102 and 118, are planned for construction after 2020.

A study was undertaken by the Province, with input from HRM, to investigate capacity improvements to existing roads and intersections that will be required to accommodate the Burnside Connector.

DISCUSSION

The Highway 107 extension is expected to attract a significant amount of existing traffic from Magazine Hill and Highway 102. The resulting traffic diversion has implications for existing roads and intersections, as volumes will change considerably from those experienced today.

Table 1 summarizes intersection improvements to HRM roads that were identified as necessary within the next five years, both with and without the construction of the Highway 107 extension, phase 1.

Table 1 – Intersection Upgrades Required with and without Highway 107 Extension, Phase 1

<u>Intersection</u>	<u>Upgrades</u>
Glendale Drive at Beaverbank Road	Reconstruct intersection to include 2 NB through lanes and dual SB left-turn lanes.
Glendale Drive at Old Beaverbank Road	Add WB left-turn lane on Glendale Drive.
Glendale Drive at Smokey Drive	Add EB left-turn lane on Glendale Drive.
Glendale Drive at Beaverbank Road	Add EB left-turn lane on Glendale Drive.
Glendale Drive at Rankin Drive	Add EB left-turn lane on Glendale Drive.
Glendale Drive at Raymond Drive	Add WB left-turn lane on Glendale Drive.
Glendale Drive at MacDougall Avenue	Add WB right-turn lane and EB and WB left-turn lanes and signal phases on Glendale Drive.
Glendale Drive at Pinehill Drive	Add WB left-turn lane on Glendale Drive.
Glendale Drive at Chandler Drive	Add EB left-turn lane on Glendale Drive.

Table 2 summarizes intersection improvements to HRM roads necessitated by the construction of the Highway 107 Extension.

Table 2 – Intersection Upgrades Required with Highway 107 Extension, Phase 1

<u>Intersection</u>	<u>Upgrades</u>
Glendale Drive at Cobequid Road	Add WB right-turn lane on Glendale Drive. Modify traffic signals to accommodate SB left-turns from Cobequid Road onto Glendale
Glendale Drive at HWY102 SB Ramps	Upgrade existing signalized intersection to include an EB right-turn lane on Glendale Drive and dual left-turn lanes for the WB Glendale Drive and SB HWY102 exit ramp approaches, or, construct a new roundabout (see Attachment 2).
Duke Street at HWY102 NB Ramps	Upgrade existing signalized intersection to include a NB right-turn lane and right-turn channel or, construct a new roundabout (see Attachment 2).
Duke Street at Mann Street	Add EB left-turn lane on Duke Street

In addition, the study recommends that the section of Duke Street between Damascus Road and Rocky Lake Drive, be widened to 4-lanes from its existing 2-lane cross section.

It is anticipated that these road upgrades will provide adequate traffic capacity to accommodate projected 2016 volumes. Future Highway 107 phases (2 & 3), which will provide direct connections with Highways 102 and 118, will reduce volumes on Akerley Boulevard and Duke Street and add necessary capacity to accommodate 2026 traffic volumes.

BUDGET IMPLICATIONS

There are no immediate budget implications. Projects identified in this report will be approved through the normal budgeting process. Intersection changes like these are included based on priority in the Intersection Improvement Program CTU01086. Two of the projects recommended (left turn lanes on Glendale at Smokey Drive and at Old Beaver Bank Road) were completed under the program this year. Some projects may be positioned for cost-sharing with the Province.

FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN

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

COMMUNITY ENGAGEMENT

No specific community engagement has been undertaken on this issue. Public consultation was undertaken in 2009 as part of the Highway 107 corridor study undertaken by the Province.

ATTACHMENTS

Attachment 1: Study Area

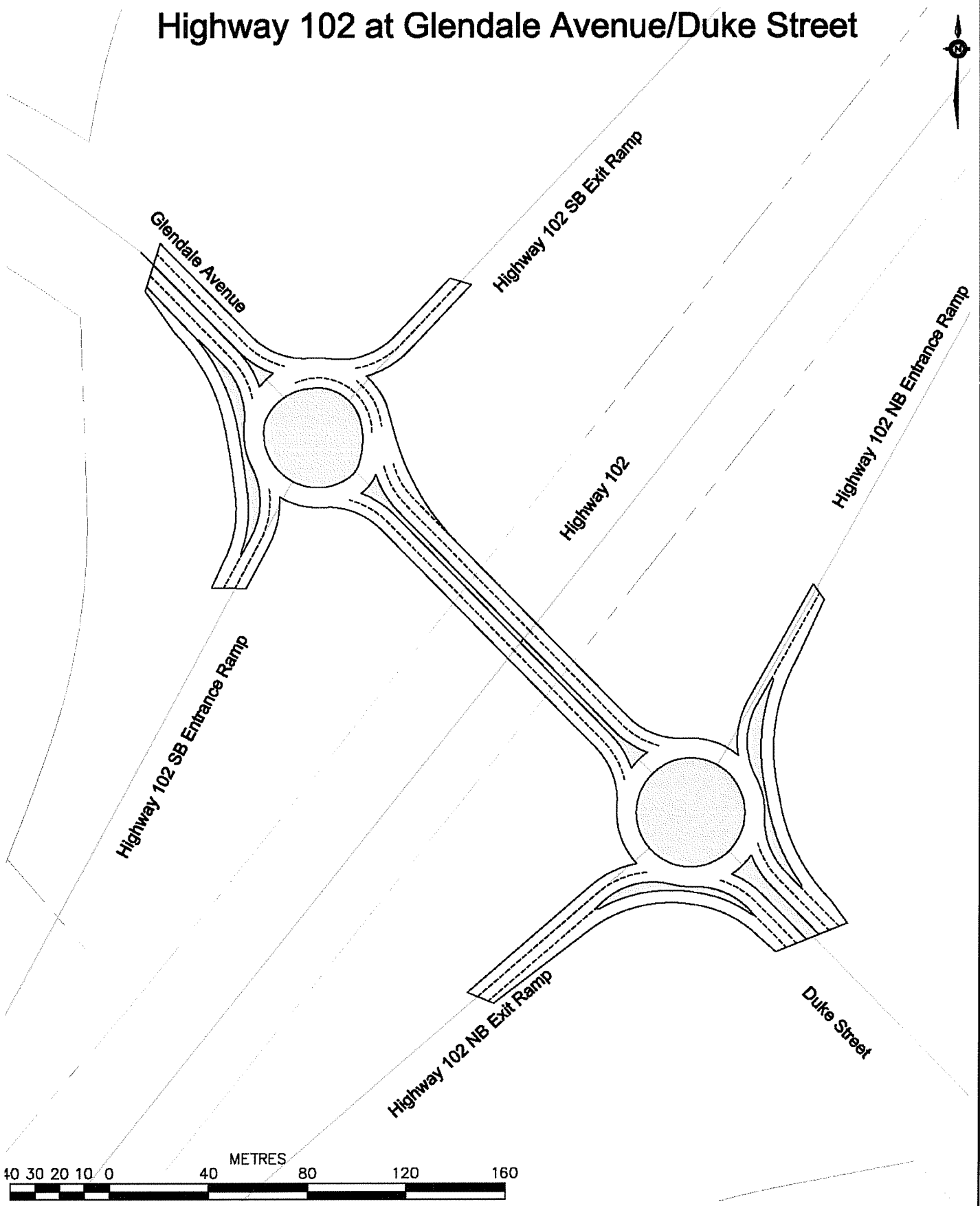
Attachment 2: Functional Roundabout Layouts

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.

Report Prepared by: Mike Connors, P.Eng., Transportation Analyst, Strategic Transportation Planning, 490-1038

Report Approved by: 
David McCusker, P.Eng., Manager, Strategic Transportation Planning, 490-6696

Highway 102 at Glendale Avenue/Duke Street



LEGEND

- Study Intersection
- Areas Reviewed for Trip Diversion to Highway 107, Phase 1
- Highway 107 Extension Phase 1
- Highway 107 Extension Future Phases

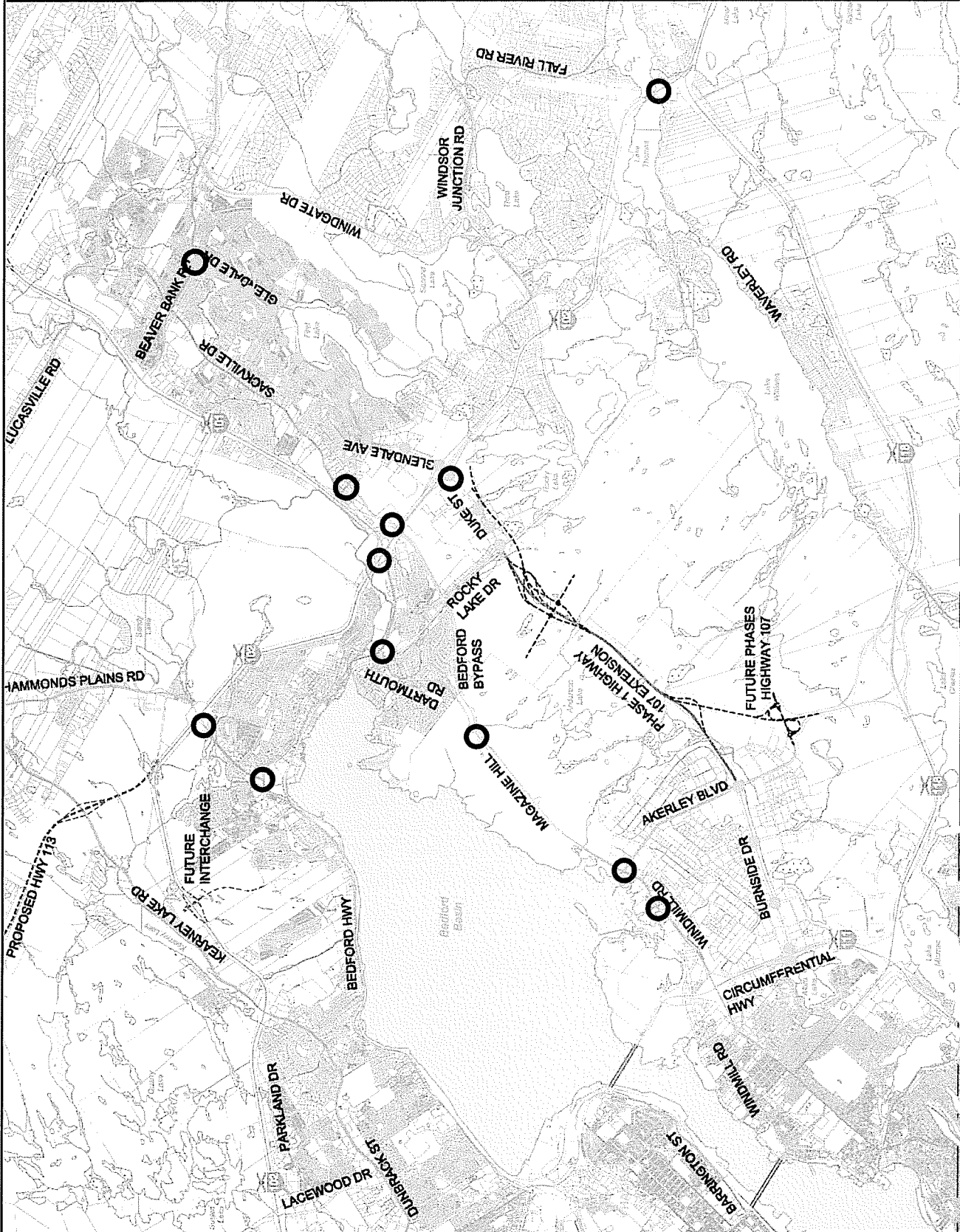
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STUDY AREA

October, 2011



Highway 107 Traffic Impact Study

ATTACHMENT 1

Study Area

