

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf. **25 RG270-20Q**
Your File/V/Réf.

DATE 10 October 1996

TO/DEST. Co-ordinator Transportation Committee

FROM/EXP. Director Mobility Services and Corporate Fleet Services
Environment and Transportation Department

SUBJECT/OBJET **LEES AVENUE AND MAIN STREET**
 - TURN PROHIBITION

DEPARTMENTAL RECOMMENDATION

That the Transportation Committee recommend Council approve:

- 1. the prohibition of southbound left-turning movements from Main Street to Lees Avenue from (3:30 to 5:30 pm Monday to Friday);**
- 2. the exemption of bicycles from the existing southbound through and left turn prohibition (3:30 to 5:30 pm Monday to Friday) at Concord and Lees Avenues;**

and the amendment of the Traffic and Parking By-law to reflect this change.

BACKGROUND

This turn prohibition was requested by the Ottawa East Community Association as part of its action plan to improve safety on Main Street. Both the City Councillor and Regional Councillor for this ward concur with the proposal.

Main Street in the vicinity of this intersection is four-lane undivided. Southbound left turns are currently permitted at anytime from Main Street to Lees Avenue, with the result that southbound through traffic is generally confined to one lane. This creates excessive delays for all southbound movements, especially during the pm peak period.

In evaluating the impacts of this proposal, southbound left-turning volumes were reviewed and found to be highest in the pm peak. The 1996 count showed that during the 3:30 to 5:30 pm period, 186 such turns were made and these were opposed by 2,098 northbound straights. It also

showed that the peak hour for that movement occurred between 4:00 and 5:00 pm, when 108 such turns were made and they were opposed by 1,101 northbound straights.

If southbound left-turning movements were prohibited at this intersection in the pm peak period, drivers wishing to access Lees Avenue (between Main and the Hwy 417 overpass) would be required to use an alternate route. It would consist of Main Street, Greenfield Avenue, Mann Avenue and Lees Avenue (new alignment). The current and alternate routes are illustrated in Annex A.

To assess the impact of diverting traffic from the current to the alternate route, a license plate trace was first conducted. It showed that between 3:30 and 5:30 pm, more than 90% of the vehicles making left turns from Main onto Lees, continued east on Lees past the Hwy 417 off-ramp. Further, most of those vehicles made eastbound right turns from Hawthorne to Main.

To compare the time requirements to access Lees via the current route versus the alternate route, travel time surveys were then conducted. The routes (Route A via Lees and Route B via Greenfield) shared a common starting point (the centre of the Main/Hawthorne intersection) and common destination point (the centre of the Lees/Hwy 417 eastbound on-ramp intersection). The results, summarized in Annex B, indicate that on average the alternate route takes about one and one half minutes longer to complete. The average time using the current route was 2:36 (two minutes and thirty-six seconds) and the delays encountered were generally attributable to congestion at Main and Lees.

While the turn restriction would therefore slightly increase the travel time for eastbound drivers on Hawthorne destined for Lees Avenue, the benefits gained by other users of the Main/Lees and Main/Hawthorne intersections far outweigh that consequence.

One of the benefits would be a redistribution of “green time” at both intersections to better service other demands. In turn, this would increase the level of service for southbound through movements on Main at Lees from F to C, and at Main and Hawthorne, would improve the level of service for northbound left-turning movements from F to D and that for eastbound right-turning movements from F to C. Traffic operations on the Pretoria Bridge would also improve because eastbound queues stemming from right-turning demands at Main and Hawthorne, would also be reduced.

However, the prohibition of southbound left turns from Main onto Lees also presents a signage challenge. Unless those drivers are forewarned of the restriction well in advance of their arrival at that point, it will not be well complied with. Therefore, advance advisory signs must be posted on Main north of Greenfield and on Hawthorne just east of Colonel By. Eastbound drivers on Hawthorne, responding to that sign, require an ample opportunity to manoeuvre to the centre lane to make the required (left) turn to the alternate route. In addition, guide signs directing traffic to Lees via Greenfield must be placed on Hawthorne west of Main, on Main both directions in the vicinity of Greenfield, and on Greenfield approaching Lees. Since the proposed restriction will only be in effect from 3:30 to 5:30 pm, Monday to Friday, the text on that sign will be lengthy. If the turn prohibition were in effect at all times, the advisory sign could be streamlined to simply direct Hawthorne drivers destined for Lees, to turn left at Main.

Consideration was given to banning the turn at all times; however, this was deemed impractical. During off-peak hours, drivers would simply circumvent the prohibition by continuing east on Hawthorne, across Main to access Lees via Concord, adding non-local traffic to these residential streets. To eliminate this by prohibiting southbound left turns at all times at Concord/Lees would only impose needless annoyances on local residents when accessing their homes in non-peak periods (especially evenings and weekends). Most residents and drivers are willing to tolerate some inconvenience to comply with traffic regulations they acknowledge a need for, however, there is a limit and this Department is sensitive to that.

Drivers making the southbound left turn in pm peak probably do so on a regular basis and therefore, some may initially try to avoid the restriction by using the Hawthorne/Concord route. However, it is probable that when confronted with both turn restrictions, they would soon resign themselves to the alternate route.

It should be noted that if this prohibition is approved, local residents wishing to access the area south of Lees and east of Main, may still do so by proceeding east on Hawthorne and then south on Concord to Lees. Southbound right turns are permitted at all times at that intersection and that movement, in conjunction with street patterns in the area, will facilitate direct access to any point in the neighbourhood. It is not possible to exempt cyclists from the proposed turn prohibition, since the left southbound lane must be vacated by all left-turning vehicles (including bicycles) to be effective. Therefore, it is proposed to exempt bicycles from the Concord/Lees prohibition to provide them a convenient alternate route. Unfortunately, non-residents who are determined to access Lees, may also find the use of this network of neighbourhood streets to be a satisfactory alternative.

Nonetheless, that possibility was taken into consideration by the Ottawa East Community Association when deliberating the matter and this Department agrees that their proposal should be implemented, at least on a trial basis. If problems surface in that regard, it may be necessary to reconsider the matter; however, that appears to be an unlikely need at this time.

The turn regulations and street pattern in that area are illustrated in Annex C.

As part of this investigation, a work order was issued to direct eastbound drivers on Hawthorne destined for Hwy 417 east, to turn left at Main. Those drivers were previously directed to that destination by turning right onto Main and left onto Lees.

CONSULTATION

All public consultation related to this matter was conducted by Ottawa East Community Association. Representatives of RCAG were notified of the recommendation contained in this report. No impact on transit operations is foreseen. Cyclists are provided with a relatively convenient alternative. Pedestrian operation is improved by removing conflicting left turning vehicles.

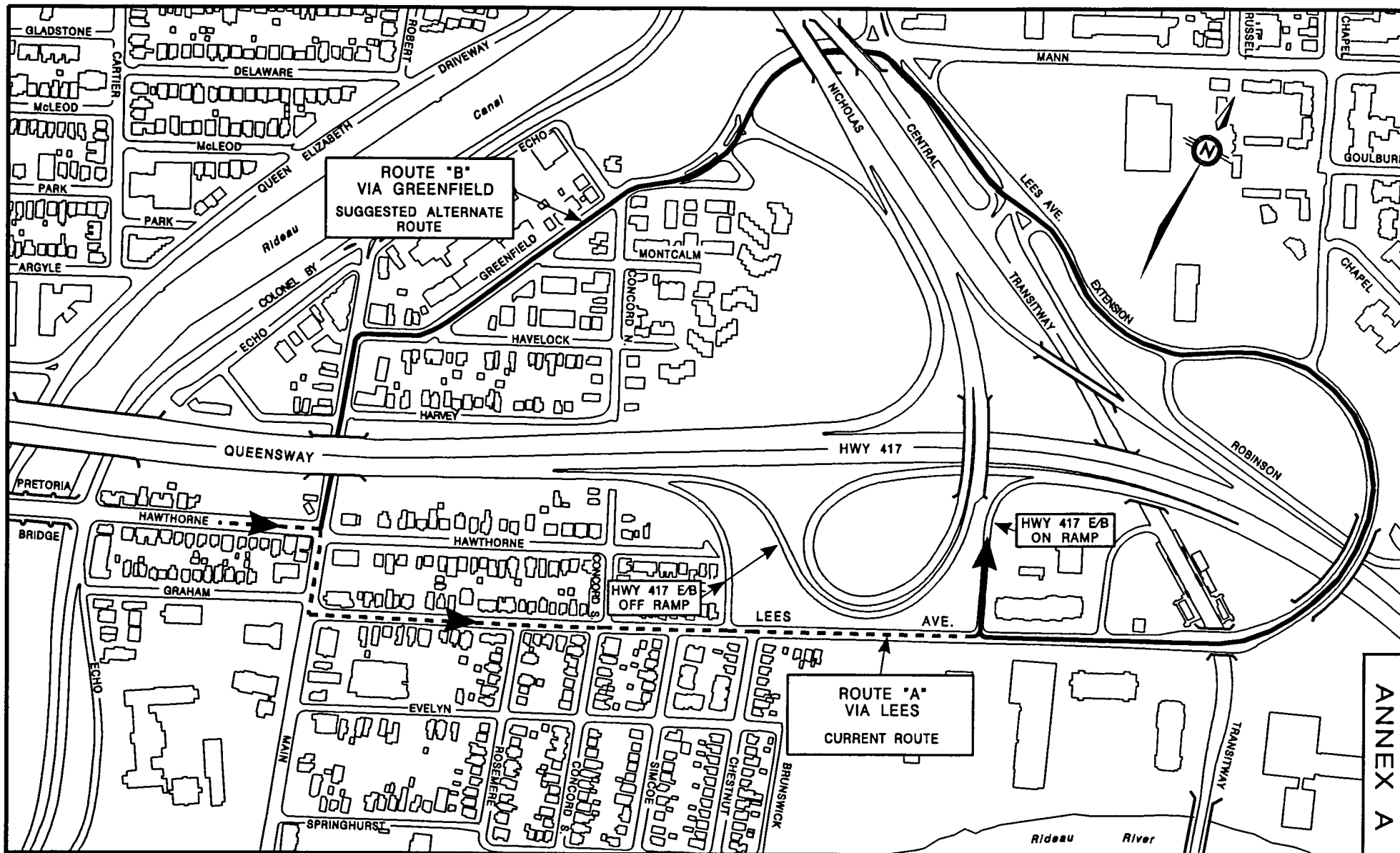
FINANCIAL IMPLICATIONS

Financial expenditures associated with this change are confined to sign costs. This includes costs associated with the fabrication and installation of advance advisory signs, which will be posted on Hawthorne between Colonel By Drive and Main Street and on Main Street between Colonel By Drive and Greenfield Avenue. Also required are guide signs on Hawthorne Avenue west of Main Street, Main Street in the vicinity of Greenfield Avenue and on Greenfield Avenue approaching Lees Avenue. Those costs are estimated at \$2,500.00.

*Approved by
Doug Brousseau*

AL/sl

Attach. (3)



ANNEX "A"

Current And Suggested Alternate Routes

SCALE	DRAWN BY	CHECKED BY
N.T.S.	G.P.	
3471s2	DATE	APPROVED BY
	OCT. '96	



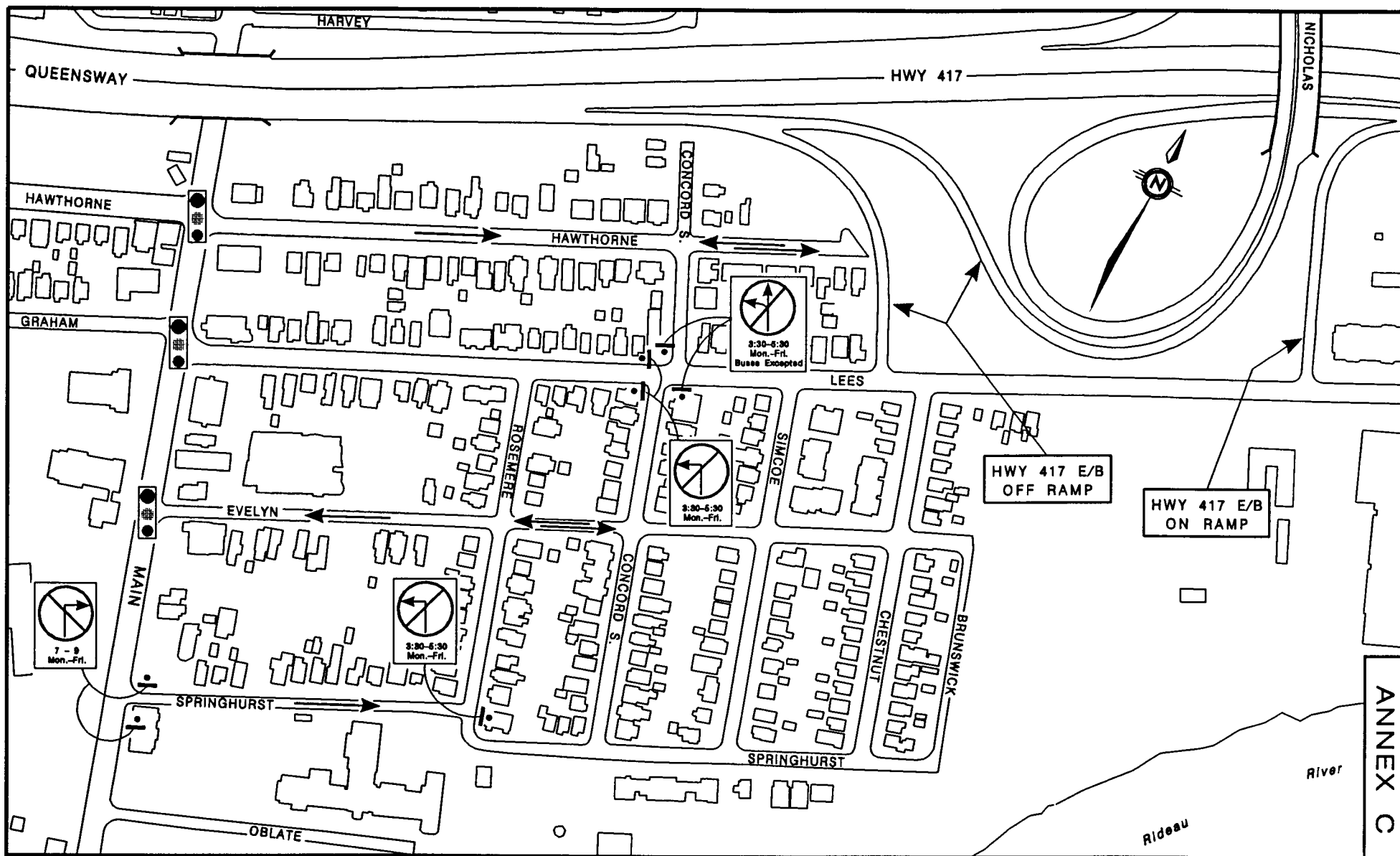
MOBILITY SERVICES
Environment & Transportation Department

TRAVEL TIME STUDY

MAIN/HAWTHORNE TO LEES/417 EASTBOUND ON-RAMP

TRIP	ROUTE "A" VIA LEES			ROUTE "B" VIA GREENFIELD		
	START	END	TOTAL *	START	END	TOTAL *
1	3:30	3:31:47	1:47	3:30	3:34:15	4:15
2	3:30	3:32:09	2:09	3:38	3:41:22	3:22
3	3:43	3:45:15	2:15	3:50	3:53:33	3:33
4	3:47	3:50:11	3:11	3:58	4:02:17	4:17
5	3:58	3:59:56	1:56	4:06	4:09:14	3:14
6	4:07	4:10:55	3:55	4:18	4:21:04	3:04
7	4:16	4:18:43	2:43	4:28	4:31:20	3:20
8	4:28	4:29:39	1:39	4:36	4:40:09	4:09
9	4:41	4:42:47	1:47	4:50	4:53:20	3:20
10	4:54	4:56:37	2:37	4:50	4:53:23	3:23
11	5:01	5:02:59	1:59	N/A	N/A	N/A
AVG			2:36			4:00

* THE TOTAL TRAVEL TIME INCLUDES ALL DELAYS INCLUDING THOSE ATTRIBUTABLE TO TRAFFIC SIGNALS AND TRAFFIC CONGESTION.



ANNEX "C"

Turn Restrictions And Street Patterns

SCALE	DRAWN BY	CHECKED BY
N.T.S.	G.P.	
3471s3	DATE	APPROVED BY
	OCT. '96	



MOBILITY SERVICES
Environment & Transportation Department