

TRAFFIC AND TRANSPORTATION COMMITTEE (TRAFFIC SAFETY DIVISION)

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

**RE: PROPOSED PARKING RESTRICTIONS ALONG ROYAL OAK AVENUE
(SANDERS TO IRVING STREETS)**

RECOMMENDATION:

1. **THAT** Council authorize the prohibition of stopping, 3-6 pm Monday to Friday, along the west side of Royal Oak Avenue, between Sanders and Irving Streets.

REPORT

The Traffic and Transportation Committee (Traffic Safety Division), at its meeting held on 2002 May 07, received and adopted the attached report regarding alleviating peak period congestion on the west side of Royal Oak Avenue through the implementation of parking restrictions Mondays to Fridays from 3:00pm and 6:00pm between Sanders Street and Irving Street.

Respectfully submitted,

Councillor D. Evans
Chair

Councillor B. Der
Vice Chair

Councillor G. Begin
Member

COPY: - CITY MANAGER
- DIR. ENGINEERING

City of Burnaby

INTER-OFFICE COMMUNICATION

TO: TRAFFIC SAFETY COMMITTEE **DATE:** 2002 04 15
FROM: ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS **FILE:** 55-13-03
**SUBJECT: PROPOSED PARKING RESTRICTIONS ALONG ROYAL OAK AVENUE.
(SANDERS TO IRVING STREETS)**
PURPOSE: To respond to the request of the Traffic Safety Committee for a report regarding the alleviation of peak period congestion on Royal Oak through the implementation of parking restrictions.

RECOMMENDATION:

1. **THAT** the prohibition of stopping, 3-6 pm Monday to Friday, along the west side of Royal Oak Avenue, between Sanders and Irving Streets be approved.

R E P O R T

1.0 INTRODUCTION

At the 2002 March 05 meeting of the Traffic Safety Committee, the problem of vehicle congestion along Royal Oak Avenue between Irving and Dover/Oakland Streets was raised. Arising out of the Committee's discussion, staff were directed to review and report back on options for improving vehicle movement through this section of Royal Oak Avenue during the peak periods through parking restrictions.

2.0 RECENT HISTORY

At the 1999 March 09 meeting of the Committee, a report recommending peak period (7-9 am and 3-6 pm Monday to Friday) parking restrictions along both sides of Royal Oak Avenue between Dover/Oakland and Irving Streets was considered. Prior to advancing the report to

Committee, staff informed residents affected by the potential restriction of on-street parking of the proposal. A petition against the project, signed by most of the residents along the East side of Royal Oak, was received as a response and attached to the report. A delegation of petitioning residents also presented their concerns at the meeting when the report was received. A primary safety concern of the delegation was the hazard added to current problems entering and exiting driveways should parking be prohibited. It was noted that the single family residences on the East side of Royal Oak did not have rear lane access. There was also concern with the wider issue of increasing traffic.

After consideration the Committee referred the report back to staff for further review.

3.0 BACKGROUND

Royal Oak from Imperial Street to Deer Lake Parkway is classified in the adopted Transportation Plan as a Secondary Arterial. According to the Plan, Secondary Arterials, as higher order roads, are expected to carry from 12,000 to 40,000 vehicles per day (the section South of Dover/Oakland carries 21,000). To accommodate this demand the Plan indicates that Secondary Arterials should have a pavement width allowing for four travel lanes *with on-street parking prohibited during peak periods*. This operating capacity is substantially realized along all of the Arterial length of Royal Oak except between Dover/Oakland and Irving streets. The attached Diagram #1 illustrates the current parking and prohibition zones in this stretch.

4.0 REVIEW

We have reviewed vehicle volume data obtained from automatic counters placed on Royal Oak Avenue [North of Sanders Street] in order to better evaluate the need for parking prohibitions during peak periods.

During an average midweek day a total volume of 21,000 vehicles was recorded, with an equal distribution between the directions of travel. Traffic volumes on Saturday are in the same order as those recorded on Sunday with an averaged total of 15,500 vehicles per [weekend] day. Graphs illustrating the average weekday and weekend directional volumes along Royal Oak Avenue are attached as Diagram #2. For convenience of interpretation, a volume of 800 vehicles per hour is shown as a reference capacity. This value is based on the lane capacity of a typical signalized intersection approach. It is relevant here as the two lanes of vehicles departing upstream signals is funnelled into a single lane. At about the 800 vehicle per hour level we would expect queuing at the merge to a single lane with congestion varying from cycle to cycle.

The peak hour by hour demand by direction is detailed in table 1 below;

**Table 1: Weekday Peak Traffic Flows by hour and Direction
(Royal Oak Avenue North of Sanders Street)**

Hour Starting @	Northbound veh/hr	Southbound veh/hr
7:00am	710	670
8:00am	810	860
3:00pm	740	800
4:00pm	820	880
5:00pm	790	830

5.0 DISCUSSION

We have reviewed the literature to determine whether there are accepted criteria for the prohibition of parking. The sole reference identified, suggests a directional volume of 600 vehicles per hour as the threshold above which parking prohibitions are warranted. This maximum is not markedly at variance with the 800 vehicles per hour reference capacity discussed above. In the consideration of priorities an examination of the data shown in Table 1 leads to the observation that the morning peak demand is not as significant as the afternoon's and that Southbound traffic volumes exceed Northbound.

Measures of the relative impact of the proposed parking restrictions by direction are tabulated below.

**Table 2: Proposed Parking Prohibition on Royal Oak Avenue:
 Measures of Consequence**

Measure	East Side (Northbound)	West Side (Southbound)
Extent	Irving to Oakland	Irving to Sanders
Property access street/lane	front street (no lane)	rear lane (3 sf use both)
Properties (no.)	19 s.f.	6 s.f. 1 m.f.
Zone Length (metres)	260	100
Net Parking Space Loss (no.)	14	11
Parking usage (no.) 8:00 am	4	1
Observed weekday 5:00 pm	4	2

The extent of the possible peak period parking prohibition on the West side is less than on the east side because there are two intermediate street intersections and stopping is already prohibited from Dover to Sanders adjacent the school. The zone length in the table above does not include existing corner clearances which are augmented on the east side to realize added capacity on the approach to the Dover/Oakland signal. While a prohibition zone added to the East side would be considerably longer than the one on the west side the loss of parking is not proportional. Without lane access all Eastside properties utilize front street driveways which reduce the amount of curb-side parking.

Observations have noted a low density of parking along both sides of Royal Oak Avenue during peak hours with the East side generally having the greater utilization.

3.0 CONCLUSION

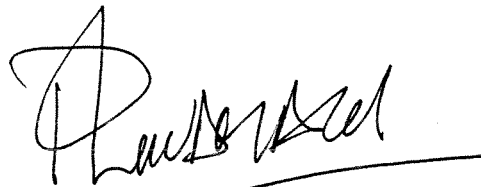
Our review of the traffic data indicates a need for weekday peak period parking prohibitions along Royal Oak between Irving and Dover to realize the added capacity of a curbside travel lane. An added lane would reduce the congestion delay and hazard of merging two lanes into

one. The benefit of doing so is significantly greater during the more extended afternoon peak than during the morning rush hour. The accrued benefit of peak period parking prohibition would also be marginally greater for southbound traffic than for northbound flow.

The convenience of on-street parking is valued by adjacent residents hence its removal is generally considered a loss from their perspective. The consequential measures discussed above, including prior resident feedback, suggests that the impact of parking loss on the West side of Royal Oak is less significant than on the east. The greater availability of side street parking would also mitigate loss for west side residents.

On the basis of the foregoing discussion we are recommending an incremental approach to the implementation of the peak period parking restrictions along this stretch of Royal Oak. Accordingly the first priority is to deal with the most critical southbound evening peak. This would entail placing weekday 3:00 - 6:00 pm stopping prohibition zones on the west side of Royal Oak between Irving and Sanders along with the appropriate road marking to realize two continuous travel lanes southbound. As some time has elapsed since the communication of the prior proposal for peak period parking restriction staff would again notify affected residents in advance of implementation. Signing the regulations would be delayed to allow for the Committee to hear any arising resident concerns. In accordance with practice the new signing would be "flagged" by temporary warning signs.

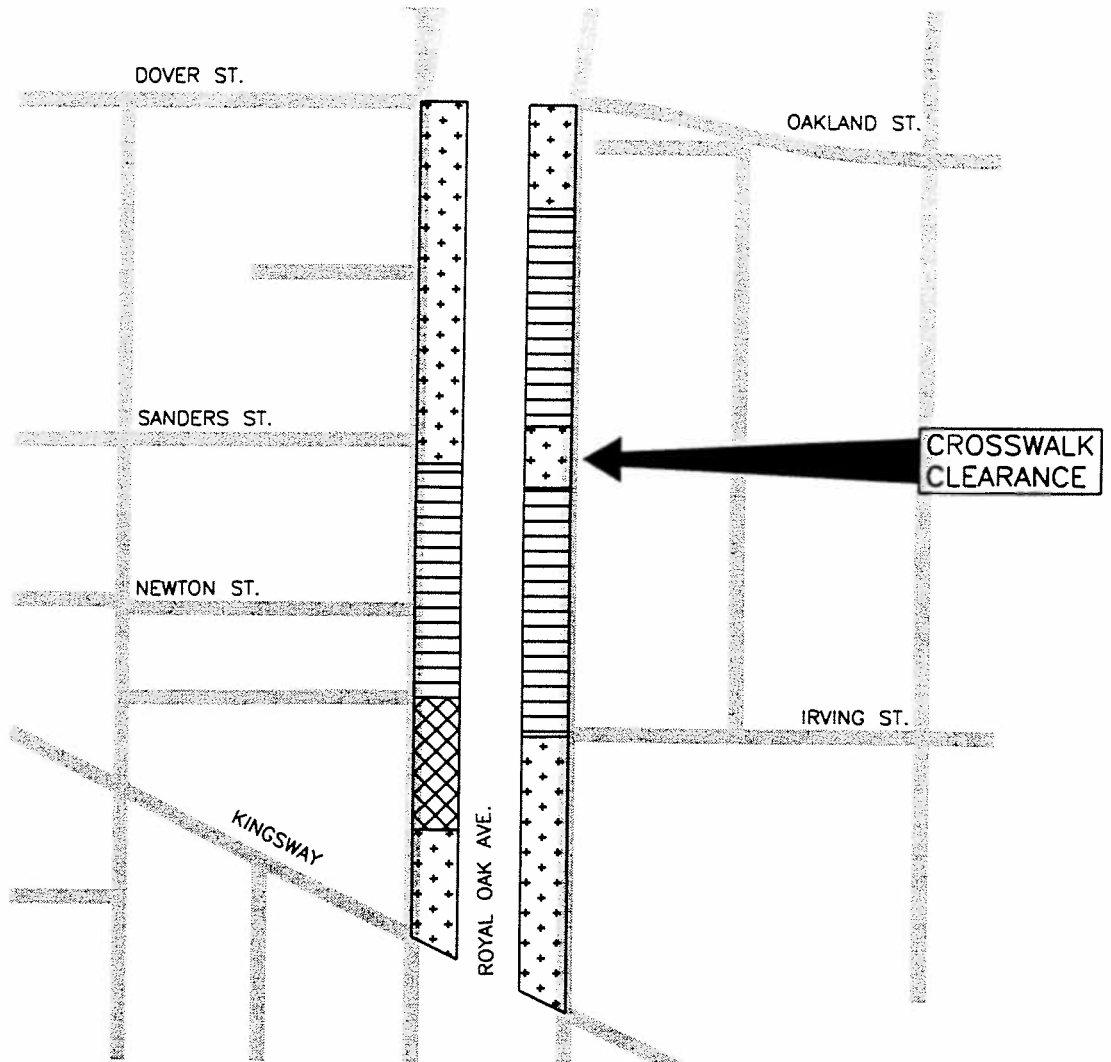
Staff will continue to monitor vehicle volumes along this portion of Royal Oak Avenue and report back to Committee should the need for additional parking restrictions arise.






P. Liivamagi, P. Eng.
ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENG. SYSTEMS

AE:
Attachments

cc: City Manager

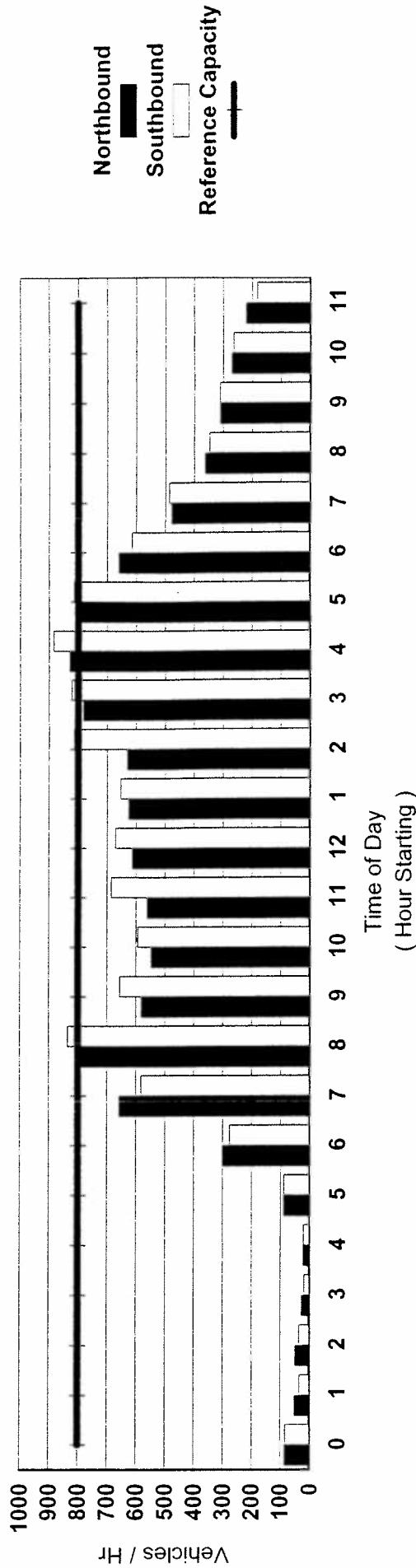


-  NO STOPPING ANYTIME ZONE
-  NO STOPPING 7am-6pm ZONE
-  NO RESTRICTIONS

NO.	DATE	REVISION
SCHEMATIC OF EXISTING PARKING BANS ALONG ROYAL OAK AVE DOVER-KINGSWAY		
DRAWN BY: HLOUIE	SCALE: N.T.S.	A 578
APPRV'D BY:	DATE: 2002-04-23	



Royal Oak Ave Weekday Volumes



Royal Oak Ave Weekend Volumes

