

REPORT
Regular Council Meeting
1991 May '21

THE CORPORATION OF THE DISTRICT OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE
(TRAFFIC SAFETY DIVISION)

HIS WORSHIP, THE MAYOR
AND ALDERMEN

A. SCHOOL SAFETY PATROL INCENTIVE GRANT

RECOMMENDATION:

1. THAT a grant in the amount of \$3,000 be awarded to School District No. 41 - Burnaby for its School Safety Patrol Incentive Program.

REPORT

A letter dated 1991 March 19 was received from Mr. Robert D. Ingram, Secretary-Treasurer, School District No. 41 - Burnaby, advising that during the school year 1990/91, 27 elementary schools in the district operated school patrols which involved a total of 1,100 students. In support of this program, the Corporation of the District of Burnaby has, in past years, forwarded a grant which has been distributed to the schools on the basis of the number of pupils participating.

Following is a list of School Safety Patrol Incentive grants for previous years:

1990 -	\$2,500
1989 -	\$2,500
1988 -	\$2,500
1987 -	\$2,000

B. ROYAL OAK AVENUE AND KINGSWAY

RECOMMENDATIONS:

1. THAT the pavement markings at Royal Oak Avenue and Imperial Street be modified to provide for opposed left turn lanes north and southbound and the traffic signal modified to provide north and southbound left turn arrows.
2. THAT left turns be banned from 3:00 p.m. to 6:00 p.m. for north and southbound Royal Oak Avenue traffic at Kingsway until the intersection is widened to provide left turn channelization.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

INTERNAL DISTRIBUTION:
AGENDA - 1991 MAY 21
COPY - MUNICIPAL MANAGER
- DIRECTOR ENGINEERING
- DIRECTOR PLANNING & BUILDING INSPECTION
- O.I.C., R.C.M.P.

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"Appearing on the agenda for the regular Council meeting on 1991 February 11 was a letter from a Burnaby resident regarding the accident history at the subject intersection. In the subsequent report by the Director Engineering, it was outlined that there are longer term plans to widen the intersection approaches to allow for left turn channelization. With appropriate signal changes this would improve safety at this intersection. The staff report also noted that staff were considering the prohibition of left turns from Royal Oak Avenue during the P.M. peak period as an interim measure.

This change was recommended in a traffic conflict incident study completed in 1990. Staff have now completed the analysis of traffic count data and have estimated the potential impact of the proposed banning of the left turns.

Staff conducted a manual traffic count on 1991 February 19 from 15:00 - 18:00. Based on this count, staff have calculated that an additional 100 left turns per hour will be added to the peak period left turn volumes at Royal Oak Avenue and Imperial Street. To compensate for this added volume, staff are proposing a change in the existing lane markings at this intersection to provide opposed left turn lanes. The existing laning is indicated on APPENDIX 1 and the proposed modifications on APPENDIX 2. This change will allow staff to provide northbound and southbound vehicle actuated left turn arrows. The marginal reduction in through capacity will be offset by safety and productivity improvements for left turning vehicles. Staff have estimated the total cost of these modifications to be \$6,800. Funding for this project is available in the 1991 Capital Budget under Traffic Management.

Modifications, similar to those proposed at Imperial, may be beneficial at Royal Oak Avenue and Dover/Oakland Streets pending reconstruction of that intersection. However, the existing northbound left turn volumes are lower at that intersection and the increased volume may not generate a requirement for an advance arrow. Staff will monitor the effect of the left turn restriction on this intersection and implement the modifications if required."

C. KITCHENER STREET AT INGLETON AVENUE

RECOMMENDATIONS:

1. THAT Council approve the installation of a two-way stop on Ingleton Avenue at Kitchener Street.
2. THAT B.C. Transit be sent a copy of this report.

REPORT

Staff have recently received a request from B.C. Transit to have stop signs installed at the uncontrolled intersection of Kitchener Street and Ingleton Avenue giving right-of-way to Kitchener Street.

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report in response to B.C. Transit's request.

"Staff have reviewed this request relative to policy. Although the statistical warrant for stop sign installation is not met, staff concur with the need for stop signs.

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Kitchener Street between Boundary Road and Douglas Road is heavily used by transit buses arriving at and departing from the Kitchener transit centre. Many of the trips are to the east (to Douglas Road) through the Kitchener/Douglas intersection. With a minimum grade of 10% on the approach to this intersection any evasive action required on the part of the bus drivers would be difficult. This problem is compounded as the sight distance in the westbound direction is restricted due to buildings.

Staff feel that by stopping Ingleton Avenue, which was a low volume of traffic, in favour of Kitchener Street, staff would be reducing the potential of a serious incident occurring at this intersection as well as facilitating transit operations."

D. BUS STOP AT ROSSER AVENUE AND HALIFAX (ROUTE 120)

RECOMMENDATION:

1. THAT Ms. Evelyn Collie, Resident Council President of Rideau Manor, 1850 Rosser Avenue, Burnaby, B.C., V5C 5E1, be sent a copy of this report.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"Council, at the regular Council meeting held on 1991 March 11 received a report on pedestrian crossings at Halifax Street and Rosser Avenue. Arising from the discussion, Council adopted the following:

1. 'THAT Municipal staff investigate the relocation of the Number 9 extension bus stop on Rosser Avenue to outside 1850 Rosser Avenue and that a report be submitted directly to the Transit Division of the Traffic and Transportation Committee'.

Municipal staff and B.C. Transit have previously been investigating the feasibility of locating a new bus stop across from 1850 Rosser Avenue in the southbound direction. During a recent field trip in which the new routing of the #120 service was being tested - the new #120 route will supercede the #9 - it was determined that this location is feasible not only from an operational point of view, but also desirable from a safety perspective. Residents of Rideau Manor will no longer be required to cross Halifax Street to utilize this service. APPENDIX 3 indicates the location of the new bus stop in relation to Rideau Manor.

Staff will determine what improvements will be required in order to make this an accessible stop, i.e. bus pull-in and passenger loading area. The improvements will be carried out as soon as possible.

This matter has been discussed with Ms. Collie, Resident Council President of Rideau Manor."

E. BURKE STREET AT PATTERSON AVENUE

RECOMMENDATIONS:

1. THAT the existing 2-way stop control at the Burke/Patterson intersection be converted to 4-way stop control.

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2. THAT staff review alternate medium term strategies for "calming" traffic in the Burke corridor, in consultation with concerned residents, and report to the Committee within 6 months.
3. THAT a copy of this report be sent to members of the Garden Village Traffic Committee.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"1.0 INTRODUCTION

At a meeting held at the Municipal Hall 1991 April 18, the Chairman of the Committee and staff met with the Garden Village Traffic Committee.

The delegation submitted the attached brief (APPENDIX 4) and outlined a number of traffic related concerns summarized as follows:

1. Since the activation of the Burke/Willingdon signal the traffic demand on Burke has increased. Much of this traffic is seen to be extraneous to the neighbourhood.
2. Since activation of the signal there have been a number of accidents at Burke/Patterson. Loss of control by vehicles involved has raised concerns for the safety of neighbourhood pedestrians and property.
3. Traffic speeds, particularly on Burke, are a significant concern for area residents.
4. An increase in truck traffic, clearly in contravention of the truck route regulations has been noted on Burke.
5. Speed and volume of traffic along Burke has raised concern for school crossing safety along the Burke corridor.
6. Incidence of vandalism, burglary, etc. has been increasing possibly as a result of increased neighbourhood accessibility. There is an active Neighbourhood Watch program.

Staff have been monitoring the Patterson/Burke intersection safety as a result of the previous concerns voiced by Ms. Sellers, a resident on the corner of Burke/Patterson. Because of this focus, data related to other emergent concerns of area residents has not yet been collected or evaluated.

2.0 BACKGROUND

2.1 Accident History on the Burke Corridor

Table 1 of APPENDIX 5 shows that the Burke/Patterson intersection has exhibited an accident history out of keeping with expectation. In response to safety concerns the intersection has stop ahead warning signs on the Burke approaches and Patterson is protected by oversized stop signs. There are no alignment or visibility problems apparent at the intersection.

It is noteworthy that this intersection's history somewhat parallels the experience with the nearby Burke/Smith intersection where the accident situation was resolved by the installation of 4-way stops in 1989. Other intersections along Burke have a minor accident history.

2.2 Traffic Volumes on Burke Street

As with most Burnaby streets, including collector streets Burke Street has experienced an increase in traffic in recent years. Table 2 of APPENDIX 5 gives a summary of some of the traffic count data gathered in the past.

Over the past seven years Burke Street between Willingdon and Abbey shows an increase of 600 vehicles per day which represents an increase of approximately 36%. Over the past six years Burke Street between Smith and Lorraine shows an increase of 550 vehicles per day which represents an increase of approximately 24%.

Although reliable traffic count data is sparse there is no doubt that the activation of the Burke/Willingdon signal has drawn traffic to the corridor. Whether that increased traffic was totally "new" or previous neighbourhood traffic reorientated is not clear. Similarly the extent of the impact of Metrotown development on area traffic is an unknown.

2.3 Traffic Patterns

Staff have collected turning movement counts at the Patterson/Burke intersection during am, noon and pm periods. While this data is necessary for assessing traffic control options it offers only partial insight to travel patterns in the area. For example the turning movement data that has been collected cannot dimension the effect of restrictive controls such as right turn in/out access to Burke (APPENDICES 6 and 7 show am and pm peak hour summaries).

In response to movement restrictors some traffic may be diverted around the neighbourhood while other traffic might divert around the intersection. This traffic from Burke/Patterson rat running through adjacent neighbourhood streets might generate a further need for tinkering with control elsewhere.

To properly assess more comprehensive neighbourhood traffic management schemes origin-destination data is a prerequisite. Schemes based solely on perception and untested hypotheses run a higher risk of failure.

2.4 Traffic Speeds

Staff have no data on traffic speeds along Burke/Patterson but propose to deploy equipment to collect the data and hence add dimension to the problem. The assistance of police in an enforcement campaign is desirable. Apart from modifying travel behaviour the tickets and warnings that are written are a sample of the residential origin of the driver.

2.5 Truck Traffic

Staff intersection counts at Burke/Patterson indicate that about 10 trucks per hour used the intersection during the observation periods. Some of these trucks may be legitimately off truck route but past experience suggests that most are not. The majority of truck traffic was confined to Patterson rather than Burke. Truck route bylaw enforcement would probably be beneficial.

3.0 PROPOSED STRATEGY

At the recent meeting residents were pragmatic about the solution process, suggesting a need for short, medium and long term measures. In response to this staff propose the following steps.

3.1 Short Term Measures

RCMP enforcement of the speed limit and truck route bylaw with follow-up as appropriate would be desirable. Current speed data collection will be carried out. Staff will be liaising with respective school principals and school board staff to address concerns regarding children crossing the Burke corridor.

To resolve safety concerns at the Burke/Patterson intersection staff propose conversion to 4-way stop operation. It is recognized that in the longer term this control may be superceded.

3.2 Medium Term - A Corridor Strategy

It is noted that the 4-way stop at Burke/Patterson will do little to quell traffic on Burke. Residents have suggested stop sign reversal along the street and this approach has been used elsewhere. However there are other traffic management measures - such as width restrictions, traffic circles, etc. that could potentially be deployed and should be evaluated. Traffic calming techniques are more extensively used in Europe than in North America but staff are proceeding with research to assemble a portfolio of measures that would address resident concerns without impairing the collector function of Burke. Staff's intent would be to present residents with options - potentially novel ones - for dealing with traffic on Burke along with data to dimension the problem.

3.3 Long Term Solution - Neighbourhood Transportation Plan

Patterson is a major collector and Burke is a local one. In the context of their road network hierarchy function the volumes they carry are not high. Indeed Patterson is a comparatively lightly travelled major collector. There is a process for renewal of the Burnaby Comprehensive Transportation Plan currently underway which will change or affirm this classification.

Measures that substantially alter travel patterns in the neighbourhood should be carried out in the context of road hierarchy. Thus it would be appropriate to defer consideration of a comprehensive area wide "Neighbourhood Transportation Plan" until after the Transportation Plan renewal process is complete.

It may well be that the medium term strategies will be sufficient and preclude need for more draconian measures such as the "half roundabouts", traffic diverters, barricades, etc. In any case the O-D data acquired would add insight to the alternative generation/evaluation phase of the Neighbourhood Transportation Plan process.

Staff note that some proposed road improvements that are "on the books" may diminish problems in the longer term. These include widening of Kingsway and a signal at Moscrop/Boundary.

4.0 SUMMARY/CONCLUSION

Staff are recommending a phased approach to address resident concerns.

In the short term staff propose:

- 4-way stop control at Burke/Patterson
- enforcement/monitoring of speeds and trucks off truck route on Burke
- review of child pedestrian crossings along Burke with school officials
- acquisition of speed data

In the medium term staff propose:

- an origin-destination survey to clarify neighbourhood travel patterns and quantify the through traffic problem
- an evaluation, in consultation with residents, of alternate traffic calming techniques along the Burke corridor
- implementation and monitoring of a recommended mid-term solution

In the longer term, if required:

- one or more comprehensive "Neighbourhood Transportation Plan" initiatives in the area bounded by Moscrop, Willingdon, Grange/Kingsway and Boundary Road."

Arising out of consideration of this report, particularly recommendation no. 2, the Committee requested the following actions be taken:

1. THAT staff provide a report on the feasibility of prohibiting left hand turns at Burke and Willingdon during rush hours.
2. THAT staff examine the procedure for reporting and recording accidents under \$1,000.00 and further that staff consider ways and means of assisting residents to report accidents in this neighbourhood.
3. THAT staff respond to the resident's proposals in relationship to the phased approach discussed in this report.
4. THAT staff proceed expeditiously with the origin-destination survey.

F. 30 KM/H SPEED ZONE ADJACENT TO ELEMENTARY SCHOOLS

RECOMMENDATIONS:

1. THAT Council approve the amendment of existing policy to allow for posting of a 30 km/h zone on local collector streets adjacent to elementary schools.
2. THAT Council endorse the tripartite approach - Education, Enforcement and Engineering - to deal with school safety issues as discussed in this report.

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REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"INTRODUCTION

Arising out of the Traffic & Transportation Committee's consideration of a request for a 30 km/h school speed zone on Smith Avenue in front of Cascade Heights Elementary School, the following motion was adopted:

'THAT staff review policies surrounding 30 km/h school and playground speed zones.'

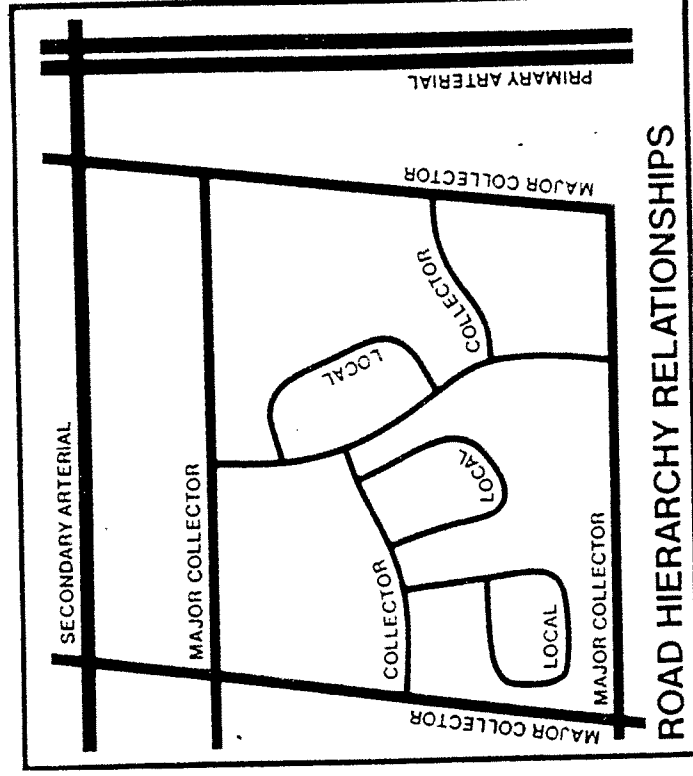
This report deals with speed zone policy at elementary schools while a companion report (Item G) discusses traffic regulation and signing at playgrounds.

The traffic regulation and signing policy of the Municipality at elementary schools was reviewed in a previous staff report dated 1989 May 11. That report (a copy of which is attached as APPENDIX 8) was endorsed by the Committee and subsequently by Council.

With the adoption of the 1989 report Burnaby's signing policies are in broad conformance with neighbouring municipalities particularly the City of Vancouver. There are obvious advantages to having a uniform approach to traffic regulation.

SPEED ZONES

The speed zones on local streets are a component of the road safety hierarchy that parallels the road network hierarchy concept of the Burnaby Transportation Plan which is illustrated below.



It is generally accepted that on local streets both pedestrian and vehicle usage is low and often the roadway itself is 'shared'. Ascending the network hierarchy traffic usage increases exponentially. Pedestrian safety - particularly child pedestrian safety - requirements increase with this increase in flow. Escalating measures include marked crosswalks, adult crossing guards, traffic signals, grade separated crossings, etc. as appropriate.

Staff believe that this approach to safety at schools has generally been accepted. In particular the adoption of the 1989 May report led to the introduction of a significant number of new school crosswalks. All crosswalks now conform to the enhanced standard and will be further upgraded by the use of thermoplastic road marking materials.

However public concerns have continued to remain focused on the local collector streets adjacent to some elementary schools. Under current policy these streets are to be provided with the appropriately located crosswalk protection rather than a reduced speed zone. Complaints and concerns have been registered regarding Smith at Cascade Heights School, Forest Grove Drive at Forest Grove School and Armstrong Avenue at Armstrong Elementary. In response to such concerns Council has approved a 30 km/h zone on Duthie at Montecito School and most recently on Clinton Street at Clinton School.

Observations and recent speed data acquisition confirm speeds that are higher than desirable. Traffic volumes, as such, do not appear to be an issue. Staff's recommendation is that the school zones on local collectors be posted with 30 km/h speed zone tabs. On the more significant network roads - those defined by the Conceptual Transportation Plan - speed zones would remain unposted in accordance with previous policy.

PROCEDURAL ISSUES/DISCUSSION

Safety issues at schools - matters that cannot be resolved through existing practice - have in the past been reviewed and often resolved through informal collaboration amongst staff from the school board, Municipality and police. Staff are now proposing to somewhat formalize this review process by regular monthly meetings of the three agencies. Staff's objective will be to maximize school safety through deployment of 'Education, Enforcement and Engineering'.

G. TRAFFIC SAFETY AT PLAYGROUNDS

RECOMMENDATION:

1. THAT Council endorse in principle the policy/procedural approach to traffic regulation at playground sites as outlined in this report.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"INTRODUCTION

In a report dated 1989 May 11 staff reviewed the traffic regulation and signing policy of the Engineering Department at elementary schools. A copy of that report which was endorsed by the Traffic Safety Committee and subsequently adopted by Council, is attached as APPENDIX 8. The schools' report noted some of the similarities between playgrounds and schools and staff indicated its intent to provide a companion report.

Subsequently the Committee requested 'THAT staff review policies surrounding 30 km/h school and playground speed zones'. This report addresses the Committee's request and staff's previous intent.

PLAYGROUND ZONE SIGNING

Staff's signing of the playground zones is similar to the signing staff employ at schools. The signing practice broadly conforms with that employed by the City of Vancouver (as illustrated in APPENDIX 9 attached) and all signs accord with the specifications of the Manual of Uniform Traffic Control Devices. The purpose of signing the zone is to alert drivers to the possibility of children on or near the road. It is noted however that the actual presence of children has the more significant effect on moderating driver behaviour.

SPEED ZONES

A survey of playground speed zone policies in neighbouring municipalities is summarized by APPENDIX 10. Staff would recommend a conformance with the elementary school speed zone policy. If approved the 30 km/h speed zone tab would be deployed on all local streets and local collectors adjacent to playgrounds. As a consequence there may be a number of locations where new speed zones will be introduced. There is also at least one playground - Cariboo Park - where there are speed zones on adjacent higher order streets. In this instance staff would not recommend removal of the zone unless alternative protection is provided.

PARKING AND STOPPING ADJACENT TO PLAYGROUNDS

The Engineering Department's practice regarding parking and stopping adjacent to playground sites has been one of flexibility. Parking restrictions have been implemented only where a concern for safety was present. A similar approach is used by the majority of our neighbours as evidenced by APPENDIX 11, and staff would like to continue this policy of park site evaluation on an individual basis.

CROSSWALK PROTECTION

Marked crosswalks at playgrounds have been provided on a case by case basis. The Transportation Association of Canada (TAC) is responsible for the Manual of Uniform Traffic Control Devices. A TAC sub-committee is currently developing application standards and warrants for marked crosswalks and pedestrian crossing protection.

An accepted warrant system will assist in implementing safe and appropriate crosswalk protection at playgrounds and elsewhere.

CONCLUSION

The recommended approach to signing and regulation at playgrounds is consistent with the approach used at elementary school signing and broadly conforms to the practice of neighbouring municipalities. If this approach is endorsed staff would use it as a guideline against which to measure existing playgrounds where safety has been raised as an issue. At this time the municipality does not have the staff resources to conduct a comprehensive review program at all parks and playgrounds. However in the longer term staff would anticipate checking and amending signing at each playground/park in the Municipality to ensure compliance with safe practice. Typically Engineering Traffic staff would collaborate with staff from Parks & Recreation and the RCMP to implement safety measures."

H.

MADISON AVENUE AT PENDER STREET

RECOMMENDATION:

1. THAT the existing 2-Way stop at the intersection of Madison Avenue and Pender Street be converted to a 4-Way stop.

REPORT

The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

"In August of 1987, with the approval of the committee and municipal council, the Engineering Department installed signing restricting parking on Pender Street on the approaches and departures of the intersections at Carleton Avenue, Madison Avenue and Rosser Avenue. This action was taken in response to several complaints of accidents and parking congestion. It was confirmed that accident rates at all three intersections were high and that parked vehicles crowding the corner clearances were probably a contributing factor.

Staff have continued to monitor the accident rates at these intersections. The following accident summary indicates that the corner clearance parking restrictions have not had the desired effect of reducing accident numbers:

	3 YEARS PRIOR	3 YEARS SINCE
PENDER - CARLETON	4.0 AVERAGE/YEAR	4.0 AVERAGE/YEAR
PENDER - MADISON	5.3 AVERAGE/YEAR	7.3 AVERAGE/YEAR
PENDER - PENDER	4.7 AVERAGE/YEAR	4.3 AVERAGE/YEAR

While the rate has been maintained at Pender/Carleton and the Pender/Rosser intersections a significant increase has been noted at the Pender/Madison intersection.

Whether this increase is due to increased volume on Madison Avenue or driver misjudgement of speed of pender traffic is unclear. The accident portion of the warrant for multi-way stops has well been exceeded. Past history has proven that 4-way stops are an effective way of reducing accident rates. Staff feel that this would be the correct action to take at this time. Staff will continue to monitor the other two intersections."

I. HATS OFF DAY

RECOMMENDATION:

1. THAT Council authorize minor expenses up to \$100.00 to cover costs associated with the Traffic Safety Division's participation in the "Hats Off Day" event.

REPORT

Hats Off Day is on Saturday, 1991 June 08. The Committee intends to set up an information booth for the purpose of distributing traffic safety literature and paraphernalia to the citizenry. Committee members have volunteered their time to staff the traffic safety booth.

The Committee is confident that participation in this type of localized initiative will provide a higher traffic safety profile in the community.

MEMBERS:

Respectfully submitted,

Mr. W. Anderson
Mr. D Baker
Mr. W.B. Bennett
Mr. M. Bloomfield
Mrs. L. Brown
Mrs. G. Evans
Mr. T. Hulme
Mr. D. McDonald
Mr. D. Ramsbotham
Mr. W.B. Roxburgh
Mr. R. Weston

Alderman J. Young
Chairman

Alderman D. Evans
Member

Alderman D. Lawson
Member

Alderman C. Redman
Member



THE CORPORATION
OF BURNABY
ENGINEERING DEPARTMENT

EXISTING LANE MARKINGS

DESIGNED BY:
DRAWN BY: G. FUNK
CHECKED BY:
APPROVED BY:

SCALE: N.T.S.
DATE: 91.04.12
L 2237

DATE

REVISION

APPENDIX /

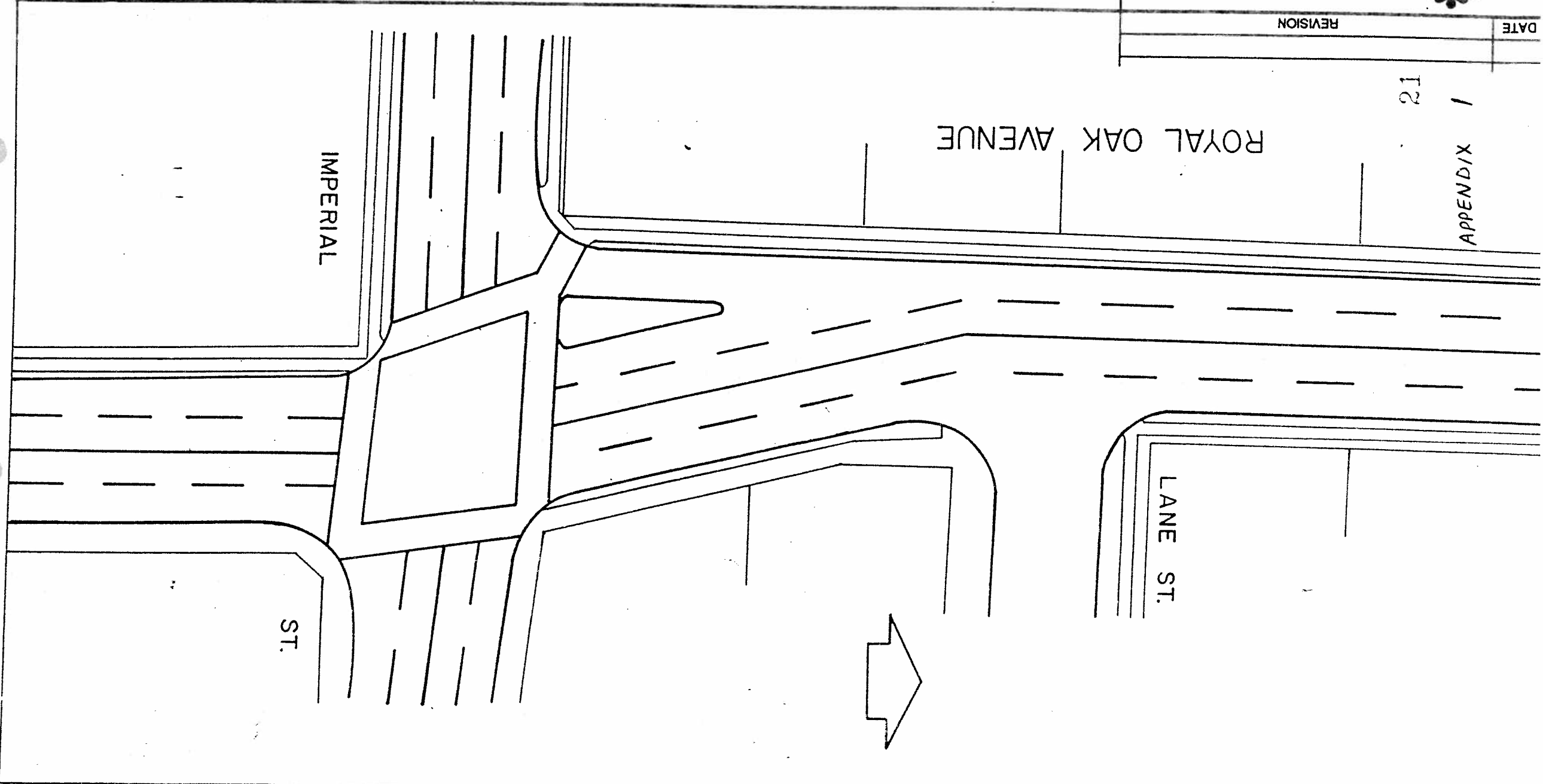
21

ROYAL OAK AVENUE

IMPERIAL

LANE ST.

ST.



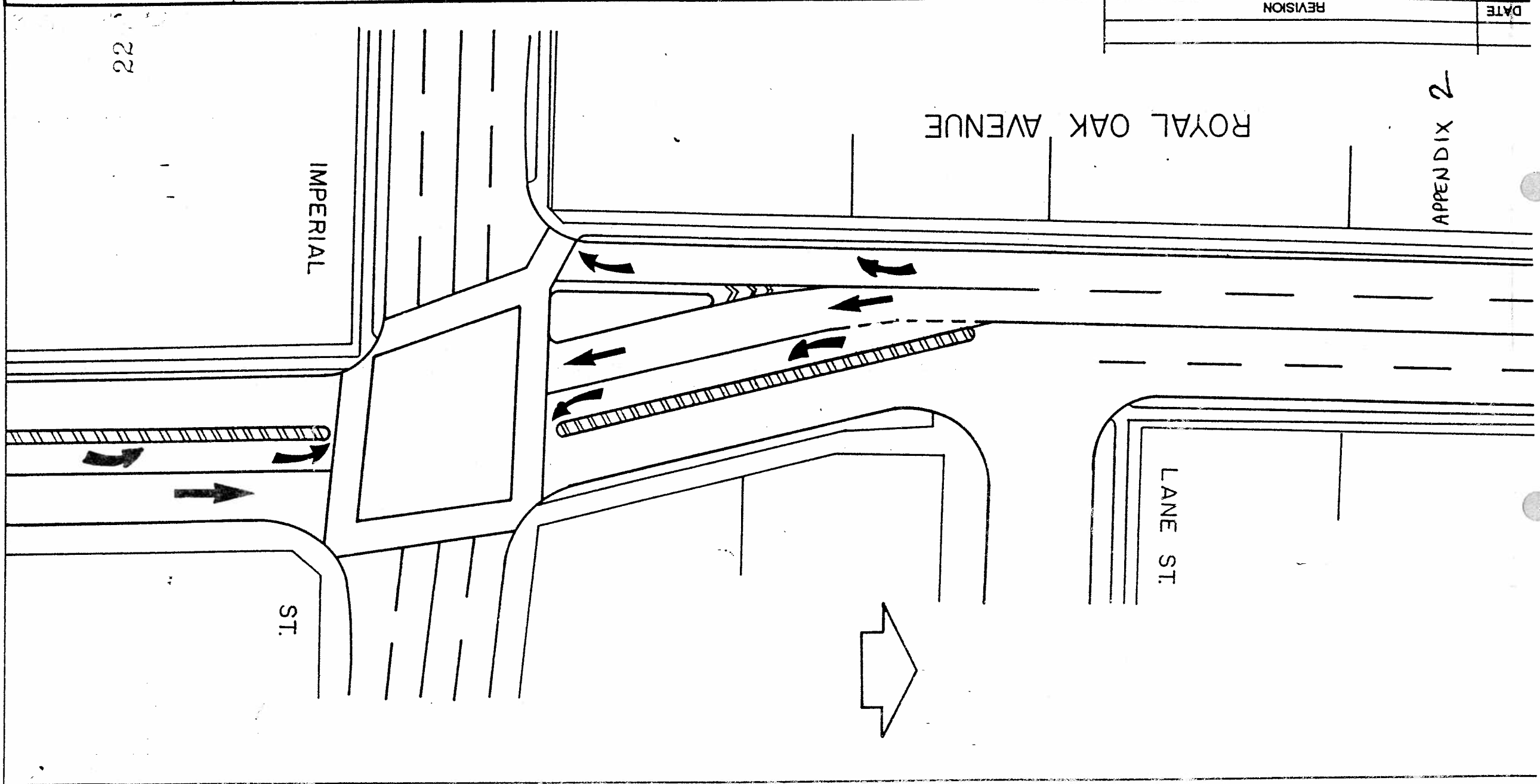
PROPOSED LANE MARKINGS

DESIGNED BY: _____
 DRAWN BY: G. FUNK
 CHECKED BY: _____
 APPROVD BY: _____

SCALE: N.T.S.
 DATE: 91-04-12
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 2237-A

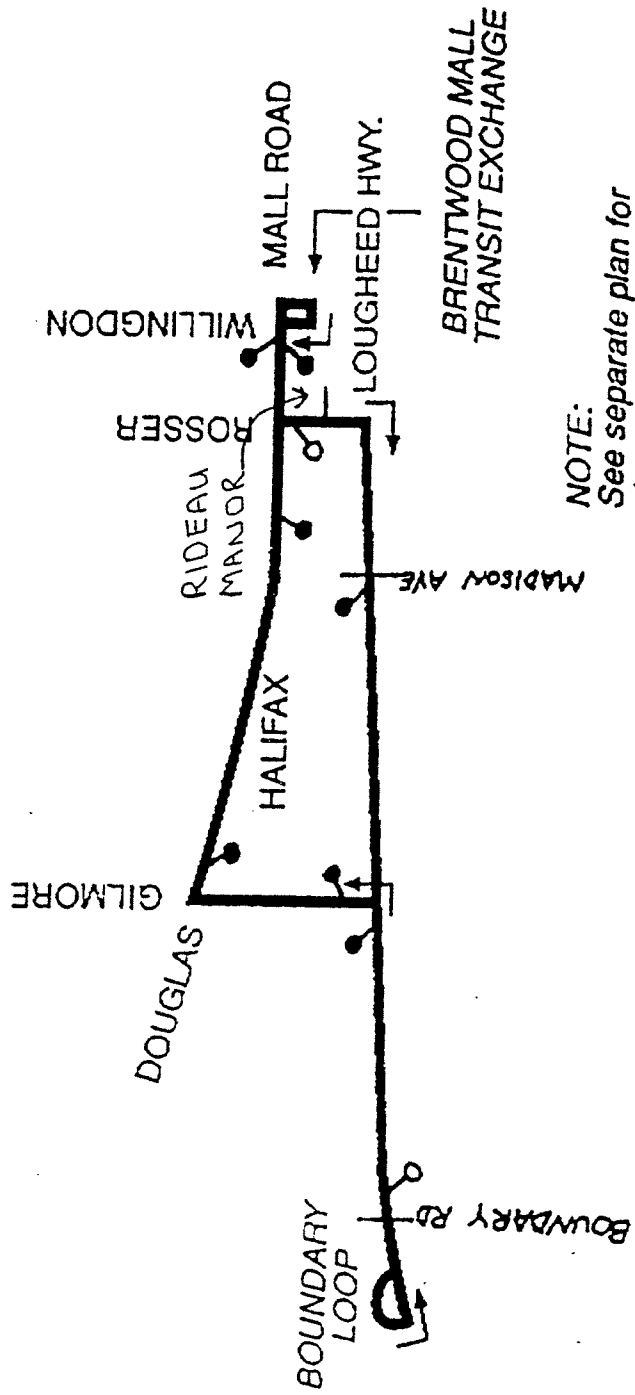
DATE	REVISION

APPENDIX 2



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9 Brentwood/Boundary Loop



NOTE:
See separate plan for
stop arrangements
within Brentwood Mall
Transit Exchange.

○ PROPOSED STOP

● EXISTING STOPS

BC TRANSIT

April 18, 1991

Mr. Jim Young - Alderman
Corporation of the District of Burnaby
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Dear Sir,

Thank you for taking the time and making the effort to permit our group of residents to make this presentation to you, Mr. Peter Livemagge, and your colleague as yet unknown to us.

At Mr. Young's suggestion this group, the Garden Village Traffic Committee wishes to bring to your attention our concern about traffic at the intersection of Patterson Avenue and Burke Street.

Over the past several months and particularly since the installation of the traffic signal at Burke Street and Willingdon Avenue, the number of vehicles using Burke Street has increased substantially. This increase in traffic has created a very dangerous situation at the intersection of Patterson/Burke. We have witnessed many accidents at this corner but recently they are becoming more frequent, more severe and are involving multiple vehicles that cause considerable damage. In November of 1990, there were two 'three car' collisions where the occupants were injured and the fire hydrant on the NE corner was ripped out. The repair to the fire hydrant is to date not complete. The grass has not been planted and the temporary sidewalk repair of asphalt not been replaced with cement.

More recently, just before Easter, we had a spectacular accident where the Northbound Patterson vehicle was struck by an eastbound Burke vehicle (who had failed to see or stop at the stop sign). This Patterson vehicle landed seventy-five feet from impact after rolling. The driver sustained injury and was removed to hospital by ambulance. Less than two weeks ago another accident occurred where the vehicle landed less than one meter from the home located on the south east corner. The night previous to this there had been two minor collisions where the police had not been called to the scene.

These accidents have awakened the area residents; they not only wish to take action to remedy this particular situation; they also want to examine the general traffic problems in the area that may be remedied with your help.

COPY

APPENDIX 4

Our concerns are as follows:

- 1.) The substantial increase in traffic on Burke Street, which is a purely residential street.
- 2.) The accidents at the corner of Patterson/Burke, their frequency and their severity.
- 3.) The resulting damage to both personal and private property and the subsequent cost to taxpayers in the form of higher insurance premiums.(ICBC).

We propose the following:

- 1.) We wish to maintain the purpose and use of Burke Street as a Minor Residential collector Street. We wish to accept alderman Young's suggestion of a half round-about on Burke Street at Patterson Avenue on both the East and West sides. We feel that this structure will serve many purposes. This will
 - a.) inhibit commuters from using Burke as a bypass of traffic jams on Kingsway and thereby reduce traffic dramatically.
 - b.) eliminate almost entirely the potential for accidents on the corner.
 - c.) help to maintain Burke Street as a Minor Residential Collector.
 - d.) , with the above, ensure the quality of life within the neighbourhood.
- 2.) Looking ahead, we feel that it is necessary to protect the residents of Cherrywood Crescent. It is reasonable to assume that when traffic heading west on Burke is limited to a right turn only onto Patterson, they would divert down Cherrywood or the lane in order to 'beat the system'. We are therefore suggesting a half round-about on Cherrywood at Patterson and speed bumps down the lane.
- 3.) We would like to have stop signs at Barker/Burke, Inman/Burke, and Abby/Burke changed to help drivers become aware of and better anticipate the stop on Burke instead of the cross street.

As a group, we are dedicated to the preservation of the liveability of our neighbourhood, to the safety of our neighbourhood and we want to maintain a reasonable quality of life within it. We feel your support of the above proposals would be significant to the achievement of these reasonable, attainable goals.

The Garden Village Traffic Committee would appreciate that these requests being scheduled for the next Traffic and Transportation Committee meeting. We respectfully request that action be taken and decisions made forthwith.

Yours truly,

Jim and Roberta Wong, 4126 Burke Street

Syd and Shirley Sellers 5192 Patterson Avenue

Sylvio and Loretta Conte 4276 Burke Street

Pat and Vera Neilson 4152 Hazlewood Crescent

Peter and Anly Wong 3970 Burke Street

Leonard and Marilyn Young 4194 Cherrywood Crescent

Jack and Debbie Allen 5287 Carleton Court

Mike Cevedio 4092 Burke Street

INTERSECTION ACCIDENT HISTORY FOR BURKE STREET
BETWEEN WILLINGDON AVENUE AND SMITH AVENUE

Table 1: Right Angle Collisions over the Past 5 Years

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Gilpin	1	0	0	0	0	0
Abbey	0	0	0	0	0	0
Chaffey	0	0	0	0	0	0
Halley	1	0	0	0	0	0
Barker	0	0	0	0	1	1
Patterson	6	5	2	5	2	4
Inman	2	0	1	0	0	0
Smith	2	5	4	12	0	0

Table 2: Vehicle Volumes on Burke Street

Smith to Loraine (east & west)	85/12/19 2,280	87/12/10 2,410	89/10/23 2,830	90/09/24 2,830
Smith to Chesham (east & west)	82/08/26 1,940	89/10/26 2,600		
Patterson to Inman (east & west)	91/04/10 3,220			
Patterson to Barker (east & west)	91/04/10 2,170			
Willingdon to Abbey (east & west)	84/08/14 1,660	88/01/05 1,760	90/09/24 2,000	90/11/15 2,270



BURKE/PATTERSON AREA PLAN

DISTRICT OF BURNABY TRAFFIC ENGINEERING

 Location: BURKE - PATTERSON
 Notes :
 Study ID: ID # 00072
 Operator: THERESA
 Weather :

 Two Vehicle Analysis

 Starts : 04/16/91 at 07:00:00
 Ends : 04/16/91 at 09:00:00
 Interval : 5 min
 S/N : 68
 Correction: 1.00
 Type: Car, Truck, Pedest

Page: 4

Date: 4/16/1991

TOTAL INTERSECTION PEAK HOUR ANALYSIS

Total Intersection Peak is: Tue Apr 16 07:20:00 1991

DIRECTION	VOLUME			PERCENTS		
	Peds	Left	Thru	Right	Total	Peak Factor
From North	3	7	220	20	247	0.28
From South	5	37	85	4	126	0.37
From East	9	12	67	8	87	0.32
From West	3	8	44	58	110	0.47
Totals	20	64	416	90	570	0.34

From North
(Peds = 3)

Approach 247 : Total 348
 Depart 101

Right Thru Left :
 20 220 7

20

Depart 124

67

37

8

Right

67

Thru

Approach 87

12

Left

al 234

From West
(Peds = 3)

Left

8

Approach 110

Thru

44

Right

58

N + E

5

Total 142

From East
(Peds = 9)

7

44

Depart 55

4

58 220 12

37

85

4

Left Thru Right

Depart 290

Approach 126

Total 416

From South
(Peds = 5)

DISTRICT OF BURNABY TRAFFIC ENGINEERING Page: 4
 Two Vehicle Analysis Date: 4/17/1991

 Location: BURKE - PATTERSON Starts : 04/16/91 at 16:00:00
 Notes : Ends : 04/16/91 at 18:00:00
 Study ID: ID # 00075 Interval : 5 min Intervals: 24
 Operator: THERESA S/N : 68 Type: Car, Truck, Pedest
 Weather : Correction: 1.00

TOTAL INTERSECTION PEAK HOUR ANALYSIS

Total Intersection Peak is: Tue Apr 16 16:00:00 1991

DIRECTION	VOLUME			PERCENTS						
	Peds	Left	Thru	Right	Total	Factor	Left	Thru	Right	Total
From North	1	11	206	6	223	0.27	4.9%	92.4%	2.7%	100.0%
From South	9	39	119	4	162	0.34	24.1%	73.5%	2.5%	100.0%
From East	2	15	57	10	82	0.36	18.3%	69.5%	12.2%	100.0%
From West	4	16	148	123	287	0.48	5.6%	51.6%	42.9%	100.0%
Totals	16	81	530	143	754	0.36	10.7%	70.3%	19.0%	100.0%

From North
(Peds = 1)

Total 368
Approach 223 Depart 145

Right Thru Left :
6 206 11 : 16 119 10

6 Depart 102 10 Right
57 Thru 57 Thru Approach 82
39 15 Left

Total 389
From West (Peds = 4)
Left 16
N + E
S
From East (Peds = 2)
11
Total 245

Approach 287 Thru 148 Depart 163
Right 123 4

123 206 15 : 39 119 4
Left Thru Right
Depart 344 Approach 162
Total 506
From South (Peds = 9)

INTER-OFFICE COMMUNICATION

TO: SECRETARY, TRAFFIC SAFETY COMMITTEE
FROM: ACTING DIRECTOR ENGINEERING
FILE: TRAFFIC-GEN
DATE: 1989 05 11

SUBJECT: Traffic Safety at Elementary Schools
PURPOSE: To review the traffic regulation and signing policy of the Engineering Department at elementary schools.

RECOMMENDATION:

1. THAT the Traffic Safety Committee endorse in principle the policy/procedural approach to traffic regulation at elementary schools that is outlined in this report.

REPORT

1.0 INTRODUCTION

The traffic safety at elementary schools is usually more fraught with emotion than any other road safety issue. Yet, statistics indicate that child pedestrians in the vicinity of schools are "safer" than elsewhere. Nonetheless, it must be recognized that young children behave irrationally and unexpectedly. Extraordinary measures to protect them are required. Often Municipal staff and the Traffic Safety Committee receive complaints from parents regarding a traffic safety problem at the school. Whether the problem is real or perceived, the complainants usually suggest countermeasures. Unfortunately, countermeasures proposed though well intentioned are usually ad hoc, do not necessarily attack the problem, and may in fact be counterproductive.

A comprehensive approach is required - one that is implemented, monitored and reviewed on an equally comprehensive basis. For the purpose of this report, we have split the issue into two factors:

- 1) the mechanistic provision of signs and traffic control regulation which is the responsibility of the Municipality's Traffic Engineering Division, and

APPENDIX 8

1.0 INTRODUCTION (Cont'd.)

- 2) the inculcation of appropriate traffic safety behaviour by parents, motorists and children. Responsibility for this area of concern falls on the parents, the school board and the police.

This report deals with the first of the above issues - relating primarily to the accountability of the Traffic Supervisor and the R.C.M.P. whose staff enforce the regulations as appropriate.

It would be desirable if a second subsequent report were prepared dealing with the other wider concerns related to traffic safety behaviour. That report would most appropriately be drafted by the School Board in consultation with the R.C.M.P., and parents (as represented on the Traffic Safety Committee). It would deal with the responsibility of each of those agencies in matters such as traffic safety education of parents, children and motorists as well as school run safety programs including safety patrols, adult crossing guards, safe routes, etc.

2.0 TRAFFIC CONTROL AND REGULATION

Specific traffic control regulations that are deployed around elementary schools are discussed below, along with proposals for refinement of those regulations. Traffic Division staff consider it imperative that the traffic regulations that we use in the Municipality are consistent internally as well as with the practice employed by other jurisdictions, most particularly our neighbouring jurisdictions. Consistency of approach amongst various jurisdictions obviates confusion and minimizes accidents resulting from misunderstandings. To this end we have discussed the aspects of school and playground safety with Traffic Engineering staff in various jurisdictions in Canada as well as the Lower Mainland. This review draws extensively from these. Our review of the literature has also yielded a useful "local" overview which is enclosed as Appendix 'A'.

2.1 School Zones

Road segments contiguous to school sites are usually defined as school zones. Roads that don't abut schools are not so defined. Following current guidelines entry to school zones is marked by the "walking school children" pentagon sign. Typically these signs will be posted on all street approaches to schools in the vicinity of the school site boundary. It should be

(Cont'd.)

(Cont'd.)

2.1 School Zones (Cont'd.)

noted that this is the practice employed by the City of Vancouver (see Exhibit 1 attached) and generally conforms with what the Municipality already does. Any review of signs at schools (as discussed below) should confirm the presence of school zone pentagon signing. It should be noted that the new "standard" pentagon sign has the walking school children silhouette but it is more stylized than that currently employed.

2.2 Speed Zones

There is almost universal agreement within the traffic engineering profession that speed zones in the vicinity of schools or playgrounds are not effective if not counterproductive. At one time, up to the 1950's, most jurisdictions in Canada used speed zones. Now only a minority do so. Amongst the minority however are Burnaby and the City of Vancouver. The City speed zones are posted on all local residential streets that are contiguous to schools but not on arterials where crosswalks are employed. Burnaby's other neighbourhood, Coquitlam, posts speed zones adjacent to school grounds that are not protected by a fence.

Most schools in Burnaby now have speed zones and it would be politically naive to recommend their removal. Rather it would be appropriate for the Municipality to move toward conformance with its largest near neighbour the City of Vancouver. Accordingly it is proposed that speed zones be employed only on unclassified residential streets contiguous to elementary schools. The reduced speed of 30 km/h will be conveyed to motorists by means of a standard tab sign under the school area pentagon (as shown also on Exhibit 1). Speed zones would not be placed on higher category roads where crosswalks are utilized. According to the Motor Vehicle Act reduced speed zones at schools are in effect from 8:00 a.m. to 5:00 p.m. on school days.

2.3 Marked Crosswalks

Marked school crosswalks should be employed on all major streets that are crossed by significant flow of school children. Ideally, for each school we should have a dendrogram (tree-like) map showing the paths which children are to be encouraged to take in making their way to school. Again ideally, this route map

2.3 Marked Crosswalks (Cont'd.)

would be defined by representatives from the school, police, the local parents association, and Traffic Engineering.

We understand that most schools in Burnaby have or do employ "safe route" programs which are a desirable prerequisite for marked crosswalk location. Staff do not propose a "warrant" system for determining marked crosswalks at schools because we feel a flexible approach is required. Obviously in determining whether a crosswalk is to be recommended we will be guided by objective criteria such as that published by the M.O.T.H. (Exhibit 2) and others (Appendix A) but we will be equally guided by the experience and advice of the R.C.M.P., school officials, etc.

The installation standards for pedestrian crosswalks has been the subject of a previous report to the Traffic Safety Committee. The school crosswalk standards which the Municipality will be employing as practice are shown on Exhibits 3 and 4 attached. Where crosswalks attract substantial other pedestrian traffic we will implement a "normal" marked crosswalk in accordance with recommended practice.

2.4 Parking Prohibitions

The "Burnaby Street and Traffic Bylaw - 1961" states "Bylaw 4999 13. (6A)

Except where a traffic control device indicates that parking is permitted, no person shall park a vehicle on that side and portion of any street upon which any school or land thereof abuts between the hours of 8:00 o'clock in the forenoon and 5:00 o'clock in the afternoon on any day on which school is regularly held."

Technically therefore we do not have to sign "no parking" zones adjacent to schools, but our recent practice has been to do so. We achieve better compliance with signed parking regulations. Under-standably motorists are irked by tickets written for violation of a parking regulation that is not signed.

APPENDIX 8

2.4 Parking Prohibitions (Cont'd.)

Again in conformance with the City of Vancouver we are proposing that parking will be prohibited between the hours of 8:00 a.m. and 5:00 p.m. on streets that abut schools. In the absence of parking parents will be able to drop kids off or stop and wait for them. However, it is our intention to further prohibit stopping during school hours at the entranceway to the school. This will allow for ready access by emergency vehicles, etc.

2.5 Sihnnette Signs

Periodically we receive requests for sihnnette signs to supplement existing signage school patrols etc. at crosswalks. These signs come in various guises. For example in Delta sihnnettes in the shape and size of a school child are deployed. Other districts have been known to use miniature police figures. Traffic Engineers believe that these signs are ineffective and constitute a serious potential hazard - for example:

- 1) An unsuspecting motorist mistaking the sign for a live person could brake or swerve and lose control thereby causing an accident.
- 2) The sign could mask a child from a motorist who has otherwise thought the crossing unoccupied.

In the event of such an accident scenario any road authority that sanctions use of sihnnette signs would be inviting a legal suit.

In the past staff have resisted such signs but under the direction of the Traffic Safety Committee have experimented with a hybrid sihnnette sign consisting of a standard school zone pentagon mounted on a fluorescent orange pylon. Results of that experiment were subject reports to the Traffic Safety Committee which are enclosed with this report as Appendix B.

The sihnnette sign's functional application is to provide an additional visual cue to motorists approaching a marked guarded crosswalk. We believe that the new school crosswalk application that has been discussed previously will provide improved visibility. However School District staff and members of the

(Cont'd.)

2.5 Sihnnette Signs (Cont'd.)

R.C.M.P. are more positive about the merits of sihnnette signs than Traffic staff. Accordingly we recommend that sihnnettes, cones, etc. to supplement crosswalk signing be further considered in the context of a review of school patrol/crossing guard usage as discussed below.

3.0 ENFORCEMENT

The active enforcement of traffic regulations, by R.C.M.P. at the schools is usually considered as a last resort. We generally find that sensible regulations, if consistently implemented, achieve a good level of compliance.

Studies and comments by others in the Traffic Safety/Engineering business indicate that the very presence of school children tends to have a moderating effect on driver behaviour. School patrols tend to reinforce driver awareness of young pedestrian activity. Other jurisdictions with strong school patrol programs are most enthusiastic about their efficiency. In Burnaby the school patrol program has fallen into disrepair as a greater reliance has been placed on paid crossing guards.

4.0 SAFETY EDUCATION

Often when staff are called out to investigate traffic safety problems at an elementary school, we are told that the problem results from poor driving habits of "computers". However most children travel to and from school outside of the peak hour of commuter travel. At most schools much of the traffic activity in the vicinity of schools immediately before and after school hours is generated by parents. Typically these parents have been observed to stop their vehicles at crosswalks, on crosswalks, in no stopping zones, u-turn carelessly, etc. Parents who accompany their child as a pedestrian have been observed to endanger the life of their child and themselves by crossing mid-block (when a crosswalk is available). Parents, like other pedestrians are often reckless in assuming that they need not exercise any caution while using a crosswalk.

(Cont'd.)

6.0 CONCLUSIONS (Cont'd.)

The report raises wider issues related to traffic safety (sections 3.0, 4.0) that are arguably more important than the placement of signs. It would be appropriate if those issues were dealt with by the School Board, under which accountability they lie in consultation with R.C.M.P. and Parents Group representation.

TRAFFIC SUPERVISOR

cc: () Traffic Supervisor
() R.C.M.P. (Attn: S/Sgt. Ron Poulter)
() School Branch
() (Attn: Mitch Bloomfield, Your Service Coordinator)

PL:je

5.0 PROCESS

These parents or indeed "careless" drivers are not malicious or uncaring - they do not wish to endanger lives of children. But often they don't realize they are not behaving sensibly and are unaware of what the sensible behaviour is. Our discussions with other traffic engineers has highlighted the importance of school safety programs that involve school officials, parents, police, and peripherally traffic engineering staff. It is particularly important to involve parents in the traffic safety education process. At schools where there is strong parent involvement in school affairs, and especially where there is parental participation in actively monitoring safety, unsafe behaviour is minimized.

When traffic staff receive a complaint regarding signage/regulation at schools our investigation includes consultation with the principal. At the conclusion of our investigation we discuss our intentions with the complainant and principal. Minor changes are usually implemented with no further ado. We would propose maintaining this procedure for routine items that are covered by "policy" (as discussed previously). For more major issues - items that typically fall under the wing of the Traffic Safety Committee - we propose extending the consultation to the School Board representative on Traffic Safety Committee and its applicable R.C.M.P. representative. This might prolong response to an issue but we believe that it would result in a more effective response.


6.0 CONCLUSIONS

Traffic Engineering staff are seeking Committee concurrence and support for uniform traffic regulation policy at elementary schools. The approach discussed (section 2.0) falls within the accountability of the Traffic Supervisor's office. However, this report has been prepared in consultation with the R.C.M.P. and School Board staff.

(Cont'd.)

4.0 ENFORCEMENT (Cont'd.)

CTP OF VANCOUVER School Zone Signs
GUIDELINE (NOTE: 50 km/h Tab is optional)

DR. HEAD: <i>[Signature]</i> TRANSPORTATION DIVISION CITY ENGINEERING DEPT. VANCOUVER, B.C.		DESIGN: SCALE: N.T.S. DATE: 8/27/00 DMC J.P.C. NO. ASD-1	
ZONE SIGN LOCATIONS SCHOOL B PLAYGROUND		REVISION DATE: 88/09/20 J.P.C. DMC APPROVAL	
LEGEND SCHOOL OR PLAYGROUND SIGN ADJACENT SCHOOLS WCI-1 ADJACENT PLAYGROUNDS RB 6T WC 3 30 km/h 		LEGEND ADDED DATE: 88/09/20 J.P.C. DMC APPROVAL	
	CASE II (PART BLOCK)	CASE I (FULL BLOCK)	
SCHOOL OR PLAYGROUND	SCHOOL OR PLAYGROUND	SCHOOL OR PLAYGROUND	SCHOOL OR PLAYGROUND

TEXT A
 The combination of traffic volume and roadway width in this zone will normally present the problem with the existing data describing why little attention or effort is given to the problem of pedestrian safety. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, from observation of the graph, it can be seen that a typical one way roadway having a width of 21.5 and a total traffic volume of 700 vehicles per hour, would have 120 with existing opportunities every hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.

TEXT B
 The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.

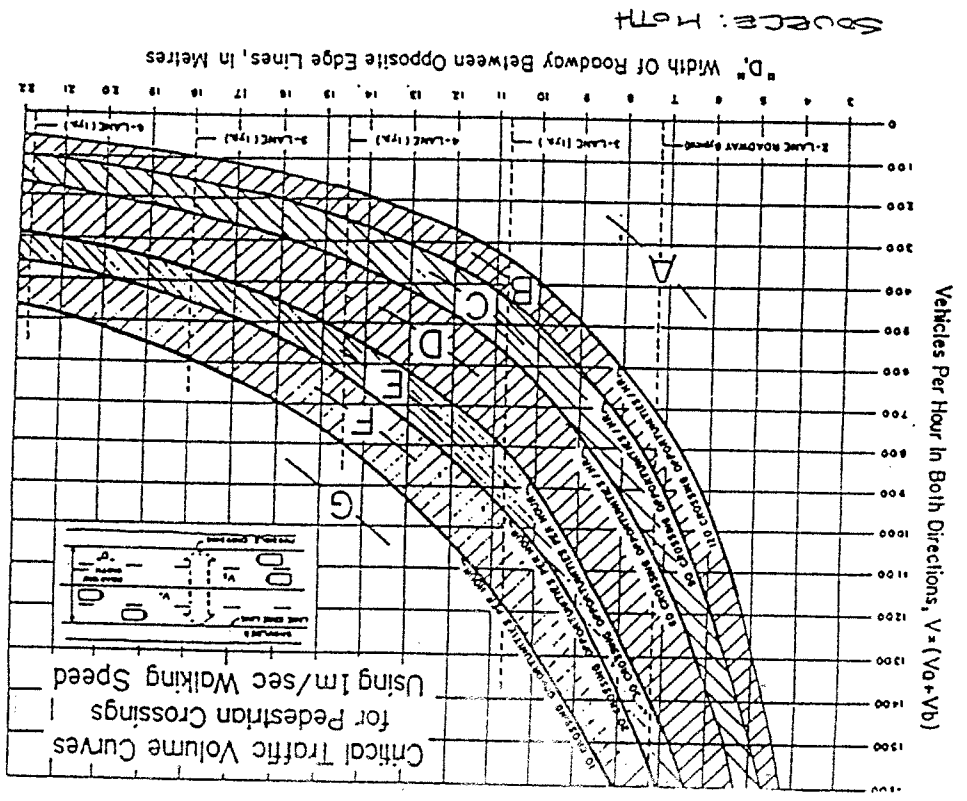
TEXT C
 The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.

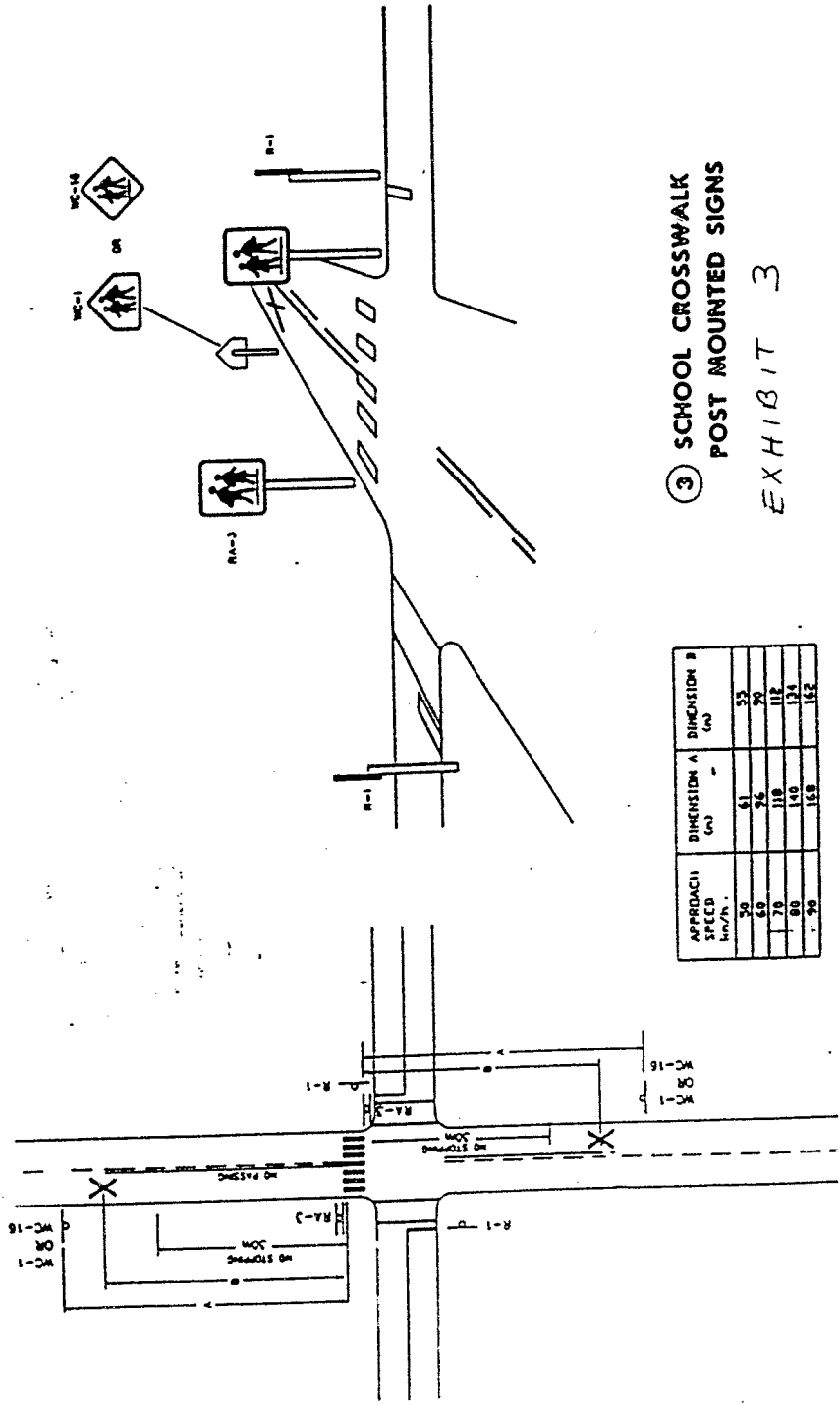
TEXT D
 The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.

TEXT E
 The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.

TEXT F
 The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.

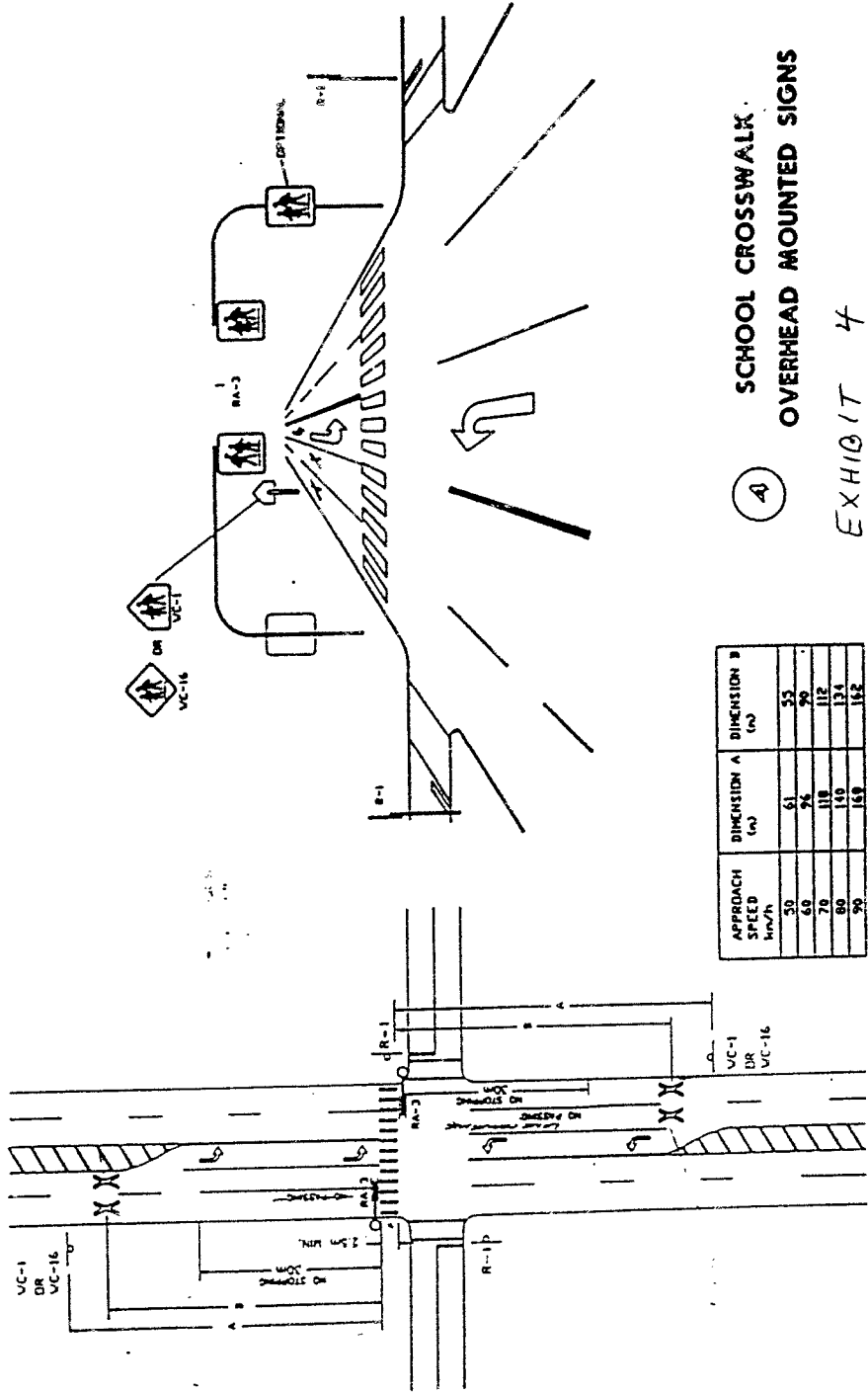
TEXT G
 The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour. The number of vehicles per hour in both directions, $V = (V_a + V_b)$, is 1200 vehicles per hour. The existing opportunities every hour are 1200 vehicles per hour.





③ SCHOOL CROSSWALK
POST MOUNTED SIGNS
EXHIBIT 3

APPROACH SPEED km/h	DIMENSION A (m)	DIMENSION B (m)
30	61	33
40	76	39
50	118	112
60	140	134
70	158	152

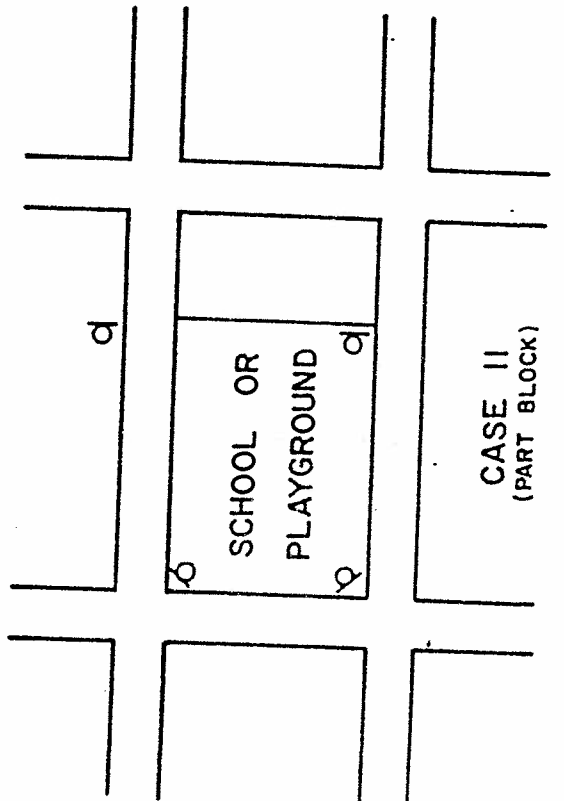
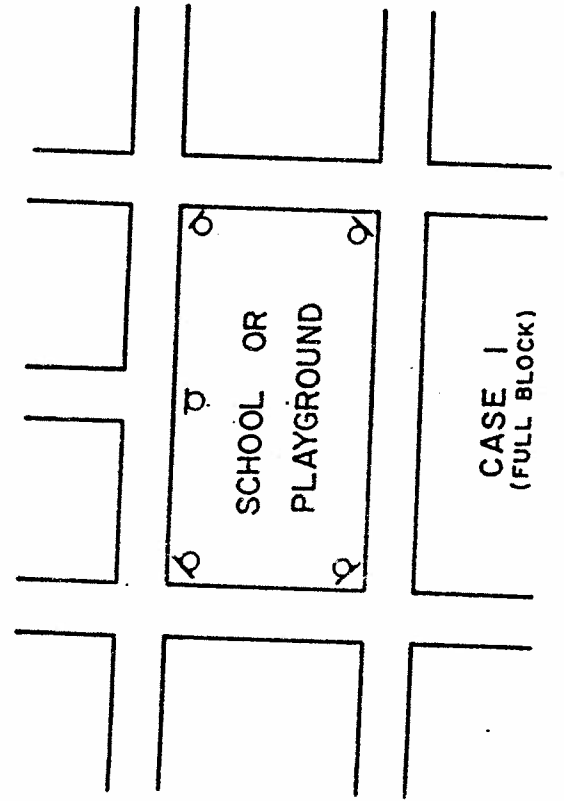


APPROACH SPEED km/h	DIMENSION A (m)	DIMENSION B (m)
30	61	33
40	76	39
50	118	112
60	140	134
70	158	152

④ SCHOOL CROSSWALK
OVERHEAD MOUNTED SIGNS
EXHIBIT 4

EXHIBITS 3 & 4
OF APPENDIX 8

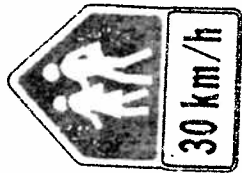
CITY OF VANCOUVER SCHOOL & PLAYGROUND SIGNING GUIDELINE
 (NOTE: 30KM/h TAB IS OPTIONAL)



LEGEND

○ SCHOOL OR PLAYGROUND SIGN

ADJACENT SCHOOLS WCI-1



ADJACENT PLAYGROUNDS WC 3



RB 6T

DIV. HEAD	88/05/20		J.P.C.	APPROVAL
BR. HEAD	REVISION	DATE	DWG	
TRANSPORTATION DIVISION				
CITY ENGINEERING DEPT.				
VANCOUVER, B.C.				
SCHOOL & PLAYGROUND		DESIGN: SCALE: N.T.S.		
ZONE SIGN LOCATIONS		DWG: J.P.C.		
		DATE: 8/7/10	DWG. No. A3b-1	

PLAYGROUND SPEED ZONE POLICIES

City of Vancouver: "Unless the street is an arterial street 30 km/h tabs shall be used."

Delta: Greater majority of playgrounds zones are 50 km/h. A handful of exceptions exist where a playground is unfenced and in close proximity to the roadway. These reduced speed zones are reserved for residential streets only.

Coquitlam: Reduced speed zones at unfenced playgrounds on residential streets. This covers active playgrounds only and does not include passive recreation sites.

New Westminster: Has reduced speed zones on collector streets and residential streets where the Traffic Department warrants their presence.

North Vancouver (District): "On local streets only the speed limit may be reduced abutting unfenced playgrounds at parks or schools where active recreation near the roadway but not on the street often occurs."

The District has approximately 4-5 30 km/h zones.

North Vancouver (City): Reduced speed zones are installed only under direction from City Council.

Richmond: 50 km/h limit maintained on all streets adjacent to playgrounds.

Surrey: Installed on residential streets only. 30 km/h speed zones are posted at unfenced playgrounds sites and where no sidewalk exists.

The District is working towards removal of a number of reduced speed zones at specified locations.

PARKING AND STOPPING ADJACENT TO PLAYGROUNDS AND PARKS

City of Vancouver: "Parking can be permitted adjacent to playgrounds and parks. Restrictions shall be added only where a concern for safety is present."

Coquitlam: Has no Street & Traffic Bylaw prohibiting parking adjacent to school or playground sites. Each playground location is evaluated on an individual basis.

Delta: n/a

New Westminster: Has no written policy. Each playground site is evaluated individually and parking restrictions may be added where a concern for safety is present.

North Vancouver (City): Parking is permitted in front of all parks and playgrounds.

North Vancouver (District): Has no policy as such. Each playground is dealt with on an individual basis when a need arises, and a survey is carried out at the discretion of the Traffic Department.

Surrey: Parking adjacent to playgrounds is covered under Bylaw 10(2) which states "No person shall park a vehicle on a highway within 15m of an unfenced portion of a school or playground or an opening in a fenced portion of a school or playground on the side adjacent to the school or playground, provided that where a specially constructed pick-up area is provided or where the width of the should available for parking is more than 5m, vehicles may pull as far off the roadway as possible and park parallel to the roadway, unless parking is restricted by signs."

