

REPORT  
Regular Council Meeting  
1992 September 28

CITY OF BURNABY

TRAFFIC AND TRANSPORTATION COMMITTEE  
(TRAFFIC SAFETY DIVISION)

HIS WORSHIP, THE MAYOR  
AND COUNCILLORS

A. BERESFORD STREET/MACPHERSON AVENUE AND  
THE B.C. PEDESTRIAN PARKWAY

RECOMMENDATION:

1. THAT Council approve installation of a marked pedestrian crosswalk on MacPherson Avenue at Beresford Street.

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

REPORT

"During routine monitoring and through casual observation staff noted that there has been a marked increase in pedestrian traffic using the B.C. pedestrian parkway as it crosses MacPherson Avenue. The surrounding neighbourhood east of the Royal Oak SkyTrain station has undergone a major change from single family dwellings and light industrial to high density townhouse/condominium development.

Increased housing density has also increased vehicular activity, and staff anticipate this trend to continue with the completion of the new Burnaby South high school, and the likelihood of further development in the area.

Staff recommend that a crosswalk be installed on MacPherson Avenue in line with the pedestrian parkway, as per guidelines shown in APPENDIX 1 attached. This would serve to enhance the existing crossing. MacPherson Avenue is currently stop sign protected at Beresford Street and staff feel that additional treatment on Beresford Street is not required at this time."

INTERNAL DISTRIBUTION:

- AGENDA - 1992 SEPTEMBER 28  
COPY - CITY MANAGER  
- DIRECTOR ENGINEERING  
- DIRECTOR PLANNING & BUILDING INSPECTION  
- O.I.C., R.C.M.P.

B. BUS STOP IN FRONT OF 3832 MARINE DRIVE

RECOMMENDATION:

1. THAT May Chan, 3832 Marine Drive, Burnaby, B.C., be sent a copy of this report.

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

REPORT

"BACKGROUND

In 1992 May, the bus stop identification post at 3832 Marine Drive was relocated 7-8m east of its then existing location. The post, which indicates the stopping point of the bus, was located on the property line between 3832 and 3822 Marine Drive. It is now situated just west of Mrs. Chan's driveway. The bus stop encompasses about the west half of Mrs. Chan's Marine Drive frontage.

This bus stop location adjustment was done in order to qualify the stop as handicap accessible. The change was objected to by Mrs. Chan and staff, after review and discussion, suggested she appeal to the Committee.

DISCUSSION

Earlier this year the #100 bus route, operating on Marine Drive, was designated as a handicap accessible route. Because Marine Drive is not a finished street and has a significant terrain crossfall, a number of individual bus stop locations had to be modified in order to be made wheelchair lift accessible.

The old stop at this location did not allow for handicap accessibility due to a fence located behind the "curb". However, as the fence diverges from the curb in an easterly direction, by slightly relocating the identification post we were able to gain adequate room in which to achieve accessibility requirements. This relocation, along with some required boulevard paving, were considered relatively minor alterations to achieve a handicap accessible stop on this difficult route.

We appreciate Ms. Chan's concerns which are shared by many other Burnaby residents located adjacent to a bus stop."

C. SOUTHPOINT/MARINE DRIVE INTERSECTION YIELD CONTROL

RECOMMENDATION:

1. THAT Council receive this report for information.

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

REPORT

"At its last meeting, arising out of the discussion regarding another staff report on this intersection, it was requested that staff review the possibility of 'reversing' the yield control on the eastbound movement along to Marine Drive.

As indicated by the attached sketch (APPENDIX 2), Marine Drive traffic yields to traffic turning left from the Southpoint Drive connector. Because this latter flow is the 'minor' one there was a concern expressed that the yield control was misdirected. However as indicated on the attached sketch there are geometric constraints to reversing the yield control. The two fundamental concerns are as follows.

1. If the left turn traffic had to yield after the left turn movement there would be a potential for queuing without any queue storage space. This could result in rear end accidents on Southpoint southbound and 'T-bone' side impact accidents between left turning traffic and Marine Drive/Southpoint through traffic.
2. The left turning driver would yield to traffic coming from over his right shoulder. For many vehicles (vans) there would be a large blind sector between the passenger window and mirrors. This would preclude a yield without significant risk taking. The accident potential is obvious.

Our review requires us to strongly recommend against further consideration of the yield control reversal. We share the Committee's continuing concern regarding operation of this intersection but note again that the intersection does not have a significant accident history and that the intersection is an interim one which will be superseded by the constructions of the Marine Way/10th Avenue Connector."

D. PARKING IN THE 7600 BLOCK 6TH STREET

RECOMMENDATIONS:

1. THAT 1 hour parking between 9:00am and 6:00pm Monday-Friday be implemented on the west side of the 7600 Block 6th Street.
  2. THAT the effected businesses receive a copy of this report.
- The Assistant Director Engineering - Traffic and Engineering Systems submitted the following report to the Committee:

REPORT

"Earlier this summer staff received a request to look into the possibility of implementing loading zones or a 10-15 minute time limit parking zone on the west side of the 7600 Block 6th Street to encourage turnover.

Staff conducted a field check and found that the majority of businesses have no rear lane and that loading must take place from 6th Street. Convenient on street parking is often scarce because of longer term 'commuter' usage of spaces. Delivery vehicles must occasionally 'double park' when loading/unloading.

Questionnaires (10) were recently distributed to the occupants along 7600 Block 6th Street. The response was as follows:

1/2 hour parking - 3 in favour  
1 hour parking - 4 in favour  
Not in favour of - 3 in favour  
any changes.

Time limit parking has traditionally been installed on a per block face basis. This policy was adopted to minimize confusion to drivers when encountering different parking regulations. The majority of responses favour time limited parking. Accordingly we recommend implementing a 1 hour parking limited zone recognizing the response pattern. This is also consistent with other parking time limits on 6th Street which has a 1 hour time limit 9:00am-6:00pm.

Staff recommend that a 1 hour time limit 9:00am-6:00pm zone be installed on the west side of the 7600 Block 6th Street."

E. ALPHA/PENDER AND ALBERT/WILLINGDON INTERSECTIONS

RECOMMENDATION:

1. THAT 4-way stops be installed at the intersections of Alpha/Pender and Albert/Willingdon.

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

REPORT

"ALPHA AVENUE AND PENDER STREET

Pender Street is a designated residential collector street between Boundary Road and Delta Avenue. It is stop sign protected throughout its length. This classification results in Pender Street absorbing local, overflow and circulation traffic from Hastings Street as well as the more immediate residential and business traffic of the corner.

This has resulted in some problems at some intersections. We have taken measures to reduce accident occurrences including parking bans at intersections, a 4-way stop at Pender Street and Madison Avenue and turn restrictions at Pender Street and Willingdon Avenue.

These measures have not had a major impact on the accident rate at the Alpha Avenue and Pender Street intersection. Over the last 5 years we have recorded 34 accidents at this intersection. At an average of almost 7 accidents per year the council adopted policy for the installation of a 4-way stop is met. As other tactics have not resolved the accident problem and no immediate changes to traffic pattern are expected we recommend installing a 4-way stop.

ALBERT STREET AND WILLINGDON AVENUE

BACKGROUND

Albert Street, like Pender Street is a collector road paralleling Hastings and similarly works to carry traffic circulating relative to Hastings. Again, similar to Pender Street, measures have been taken to reduce through volume and improve accident rates along the corridor. 4-way stops have been installed at Ingleton, Gilmore and Madison Avenue. We have received complaints about the Willingdon Avenue intersection regarding congestion and accidents. Pender Street orientated demand is expected to grow but presently Pender Street is required to stop at Willingdon Avenue.

We have noted traffic congestion at this intersection, primarily during the afternoon rush period. We have also observed Albert Street traffic experiencing difficulty accessing or crossing Willingdon at other periods of the day. Although off-peak traffic levels are not high, they are consistent enough to limit the amount of available crossing gaps.

The primary concern at this intersection is the recent accident rate. 10 accidents occurred in both 1990 and 1991. 1992 records are not complete but there is no evidence of a significant downturn.

A 4-way stop for this intersection has previously been considered. We have had some concern that a 4-way stop might queue back traffic to the Hastings/Willingdon intersection due to its close proximity.

After further considering the demand data at this intersection we believe our initial concerns may have been overstated. The major delays occur in the southbound direction during the afternoon peak. Stop sign installations on Willingdon at Albert Street should not result in northbound traffic going through the Hastings/Willingdon intersection.

With the high accident rate and congestion at the Albert Street/Willingdon Avenue intersection and an expected growth in traffic volumes with the completion of the Eileen Daily Leisure Centre we feel a 4-way stop would be an appropriate traffic control measure at this time."

F.

SAFETY CONCERNS AT THE CROSSWALK AT SUNCREST  
ELEMENTARY SCHOOL ON RUMBLE STREET

RECOMMENDATION:

1. THAT a "no passing zone" be installed at the crosswalk on Rumble street in front of the school.

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

REPORT

"1.0 BACKGROUND

The Traffic and Transportation Committee referred to staff concerns raised by the Parent Advisory Committee of Suncrest School.

The Committee would like to see:

- a) the speed limit reduced to 30 km/hr. in front of the school and posted as such;
- b) a drop off lane in front of the school adjacent to the school property;
- c) continued patrol of Rumble Street for truck use.

2.0 REDUCTION OF SPEED LIMIT

Arising out of the Traffic and Transportation Committee's consideration of a request for 30 km/hr. school speed zone on local collector streets, the following motion was adopted in 1991 May:

'That the Traffic Safety Committee approve the amendment of existing policy to allow for posting of a 30 km/hr. zone on local collector streets adjacent to elementary schools. However, on the more significant network roads like major collector's and secondary arterial's, speed zones would remain unposted in accordance with previous policy.'

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As Rumble Street is a major collector a reduced speed limit is not an appropriate protection measure.

The concerns of increased traffic during peak hours since the opening of Alex Fraser Bridge have been investigated. Staff found that traffic between 7:00-9:00am has increased by 16% since 1986 and traffic between 3:00-4:00pm has actually decreased by 11% since 1986.

3.0 TIMED DROP OFF LANE

Suncrest School has installed their own drop off lane in the parking lot of the school which eliminates the need for a drop off lane in front of the school.

4.0 TRUCK USE ON RUMBLE STREET

Staff is working with the R.C.M.P. for continued patrol of truck use on Rumble Street.

5.0 DISCUSSION/CONCLUSION

Because Rumble Street is a major collector the appropriate crossing protection should come from a patrolled/marked school crosswalk. To further enhance safety we are proposing to restrict passing on the approaches to the crosswalk. If monitoring suggests a continuing problem at the crosswalk further enhancements may be required."

Arising from the discussion of this report, the Committee requested that staff prepare a report on the feasibility of installing 'no passing zones' in front of all schools.

G. LEFT TURN ACCESS TO GRANDE CORNICHE 1 AND 11 FROM MCKAY AVENUE

RECOMMENDATIONS:

1. THAT the municipality install a left turn facility into Grande Corniche 1 and 11 from McKay Avenue with the understanding that future traffic design changes may result in the removal of the left turn facility.
2. THAT a copy of this report be sent to Mr. Roderic J. Hurry, False Creek Management Corporation, 100 - 1450 Creekside Drive, Vancouver, B.C. V6J 5B3.

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

REPORT

"1.0 INTRODUCTION

At its meeting of 1992 February 04, the Traffic Safety Committee received a delegation representing the Grande Corniche residential towers. Concurrently, the Committee received a staff report recommending:

- '1. THAT a copy of this report and the tabled one be sent to the previous delegation, Ms. Vera Deane, #2401 - 6240 McKay Avenue, Burnaby, B.C.'

The vote taken on this recommendation was recorded as being equal, both for and against the question, and therefore the motion was declared negative and lost.

Arising from subsequent discussion, the Committee adopted the following motion:

1. THAT staff prepare a report outlining the left turn options.'

## 2.0 BACKGROUND

The Grande Corniche Towers are a part of the comprehensive mixed-use development of the 11.2 acre Station Square site. As part of the Metrotown Primary Core, the site access was designed on a comprehensive basis to reflect design objectives for the Town Centre. As noted in previous reports the developer, through the site architect, had retained a transportation traffic engineering consultant to ensure that parking and access needs would be met.

What is now constructed at Station Square represents this collaboration of interests. We note that the McKay roadway and tributary signals were funded by the Station Square development. Unfortunately, the median along McKay was not completed until after the first residential tower was occupied in order to facilitate construction of the second tower. During that interim period residents found it convenient to turn left in and out of the driveways on McKay Avenue that had been provided for right turn movement only.

## 3.0 METROTOWN DESIGN

Metrotown is a designated regional town centre. An objective of regional town centres is to focus development and trip ends in a high density core area well serviced by transit. The intent is to move away from the auto oriented strip development that otherwise tends to bracket arterials. Thus part of the 'cost' of town centre development is that easy auto access to each individual use is not a paramount objective.

Staff note that if each individual use had unlimited access to the road network then overall mobility including automobile mobility and safety would be impaired. These wider objectives must be considered as a context for the review of the left turn 'enhancement' options desired by some of the residents of the Grande Corniche apartments.

## 4.0 LEFT TURN OPTIONS REVIEW

APPENDIX 3 attached maps the Grande Corniche apartments and immediate environs. Also shown on this sketch are the distances that are relevant to the consideration of accessibility to the residential complex and its underground parking. As requested, staff have considered three options for enhancing left turn opportunities for the Grande Corniche. The options have been compared with the existing situation relative to a number of evaluation factors as tabulated in APPENDIX 4 attached.

## 5.0 DISCUSSION & CONCLUSION

Staff note that the median changes that would follow from selection of any of the options must be considered as temporary pending further development of Metrotown. Hence the expenditure of capital funds now would have to be repeated when Metrotown matures in order to restore planned left turn capacity. Needless to say staff do not recommend an expenditure of \$15,000-\$18,000 for the left turn changes.

Apart from having concerns regarding cost and diminished safety, staff are alarmed by the possibility of the non-auto oriented design objectives of the Metrotown Regional Town Centre being compromised. Planning staff have also reviewed this and previous reports and reiterate their strong opposition to any left turn option."

The Traffic and Transportation Committee, at its meeting held on 1992 September 15, adopted a motion requesting that Council approve the installation of a left turn facility into Grande Corniche 1 and 11 from McKay Avenue with the understanding that future traffic design changes may result in the removal of the left turn facility.

The Committee also requested that a copy of this report be sent to the Grande Corniche Strata Council which is represented by the False Creek Management Corporation.

H. NORTH FRASER WAY - VEHICLE RACING

RECOMMENDATION:

1. THAT the Municipality install pavement undulations along North Fraser Way to discourage drag racing and further; that this matter be given a high priority.

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

REPORT

"Since its construction there has been an increasing problem of 'drag racing' along North Fraser Way. This activity has now increased to the point where complaints have become commonplace. The complainants include the tenants of the business enterprises off North Fraser Way who are concerned with litter and vandalism and residents along River Road in Richmond who are concerned about the noise. The arising public safety problem is a major concern.

Apparently the drag racing has become semi-organized, attracting up to 300 vehicles per weekend evening. A start and finish line have been painted on the road and some racers reportedly trailer their racing machines to and from the site. There is some suspicion that the approach of police vehicles is monitored. Spectators are catered to by concession vehicles and vehicle parts vendors.

Because of manpower limitations relative to other priorities the RCMP have been unable to maintain a sufficiently extended/continuous presence to discourage the activity. This stretch of street off Boundary Road has become a popular drag race venue because it is wide, relatively remote and has the requisite length of straight '1/4 mile track'. We note that when the road is linked through to Byrne Road as planned the problem will be obviated by normal through traffic.

In the absence of a resolution through enforcement we have considered other 'Engineering' solutions to the situation. Our concern has been that we should not unduly impact legitimate users of the street nor exacerbate the present danger to the street racers while attempting to discourage the practice. Initially we proposed installing raised thermoplastic rumble strips across the roadway at regular intervals to discourage the high speed driving. These corrugations in the road surface did not perform as well as we hoped on a test section. Accordingly we would recommend the more intrusive option of installing artificial pavement undulations with the appropriate warning signing."



I. TRAFFIC CONCERNS ON VICTORY STREET AT  
FREDERICK AVENUE AND AT GRAY AVENUE

RECOMMENDATION:

1. THAT copies of this report be sent to the following:

- a) Mr. Nick Podas, 4578 Victory Street, Burnaby, B.C.,  
V5J 1R7; and
- b) Mrs. Surman, 7095 Gray Avenue, Burnaby, B.C.

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

REPORT

"1.0 BACKGROUND

In recent correspondence to the Chairman, Mr. Podas expressed concerns regarding 'short cutting' through his neighbourhood and intersection safety on Victory Street at both Frederick Avenue and Gray Avenue.

An additional telephone complaint was received from Mrs. Surman of 7095 Gray Avenue requesting that staff look into the possibility of installing a stop sign at Victory Street and Gray Avenue.

2.0 INVESTIGATION

2.1 Commuter Traffic

Staff have conducted a recent traffic count to determine vehicle volumes in the neighbourhood.

Count data is summarized as follows:

<u>Vehicle Volumes/24 Hours (1992 August 27)</u>	
Victory St (east of Gray)	629
Victory St (west of Gray)	576
Gray Ave (north of Victory)	760
Gray Ave (south of Victory)	688

There is no previous count data at this location to compare with present day volumes.

Comparing the count data recently collected to count data obtained on neighbouring streets over the past few years shows a traffic flow typical of that found on residential streets in the area.

2.2 Accident History

Staff have reviewed the accident history at the intersections to determine if the Council adopted warrant has been met for isolated stop sign control. The accident history during the past five years is summarized as follows:

(Figures reflect number of right angle collisions.)

	<u>1992</u>	<u>1991</u>	<u>1990</u>	<u>1989</u>	<u>1988</u>
Victory & Gray	2	1	2	1	1
Victory & Frederick	1	1	2	0	1

The intersections of Victory/Gray and Victory/Frederick both fail to meet the Council adopted policy warrants for the installation of isolated stop sign control.

Observations by staff during field checks did not indicate any obvious traffic safety problems. Our records show that prior to 1988 there was a rash of accidents at Victory and Gray. In response an intersection warning sign was installed on westbound Gray Avenue at that time. Since then the accident count has decreased significantly.

3.0 DISCUSSION

Earlier this summer staff had spoken to Mr. Podas regarding the same concerns outlined in his subsequent letter. It was observed that any recent increase in neighbourhood traffic was probably due to watermain construction in Imperial Street between Sussex Avenue and Patterson Avenue. Construction began on May 20 and brought with it single lane delays and temporary re-routes.

Completion is expected for early September and traffic patterns should return to normal. Future traffic management strategies include left turn channelization on westbound Imperial Street at Boundary Road to accommodate lengthy queues, and intersection improvements along Imperial Street. When completed, these improvements should help to discourage 'short cutting' through residential neighbourhoods.

Staff have also received calls from residents who concurred with our concern that there might be increased speed on the 'protected' street if stop signs were to be deployed.

Staff propose that additional intersection ahead warning signs be installed on the three remaining legs of the Victory/Gray Avenue intersection. Staff will also monitor the Victory Street intersections to see whether further action is required in the context of a traffic calming initiative. Staff anticipate that a review report on traffic calming will be placed before the Committee later this year."

Arising from the discussion of the report, the Committee requested that caution signs be installed on Gray Avenue and Frederick Avenue on the southbound approach to Victory Street.

MEMBERS:

Respectfully submitted,

- Mr. D. Rankin
- Mr. W.B. Bennett
- Mr. M. Bloomfield
- Mrs. L. Brown
- Mrs. M. Canessa
- Mrs. G. Evans
- Mr. T. Hulme
- Mr. E. Fourchalk
- Mr. D. Ramsbotham
- Mr. W.B. Roxburgh
- Mr. R. Weston

Councillor J. Young  
Chairman

Councillor D. Evans  
Member

Councillor D. Lawson  
Member

Councillor C. Redman  
Member

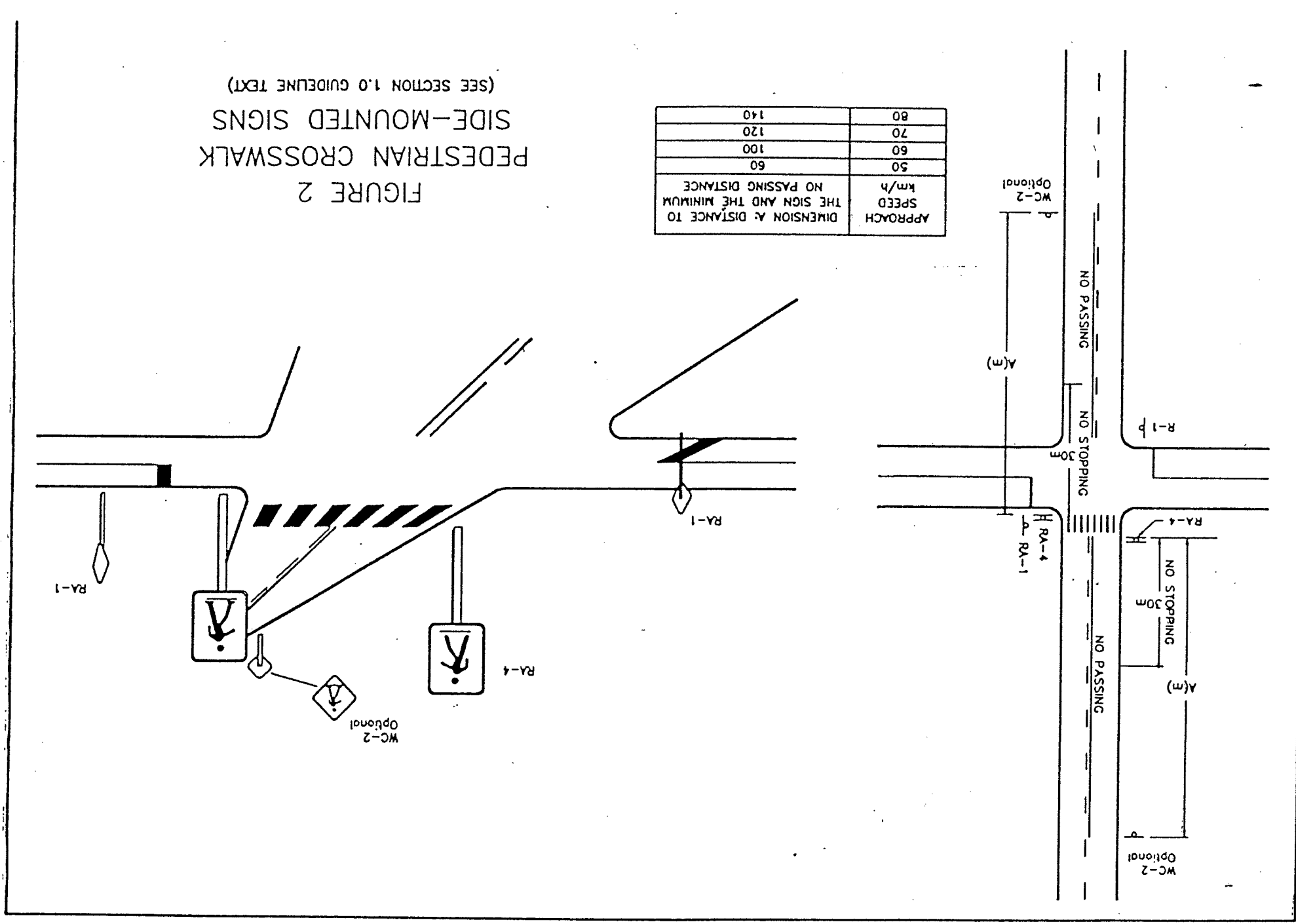


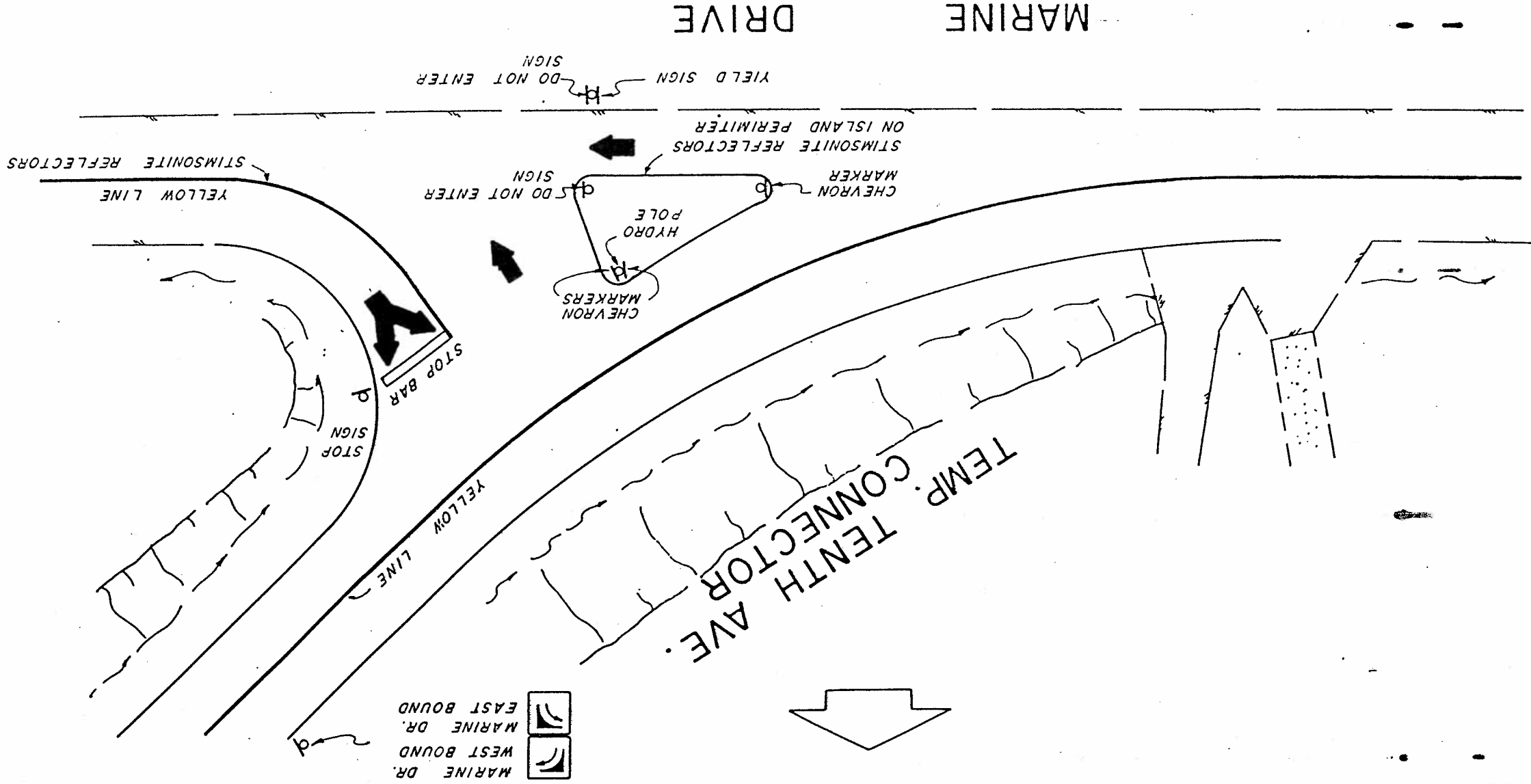
FIGURE 2  
SIDE-MOUNTED SIGNS  
PEDESTRIAN CROSSWALK  
(SEE SECTION 1.0 GUIDELINE TEXT)

MARINE DR. AT STRIDE AVE DIVERSION  
TRAFFIC CONTROL

DESIGNED BY:	SCALE: NOT TO SCALE
DRAWN BY: TS	DATE: 90-02-22
CHECKED BY:	
APPROVED BY:	L-2187

NO.	DATE	REVISION

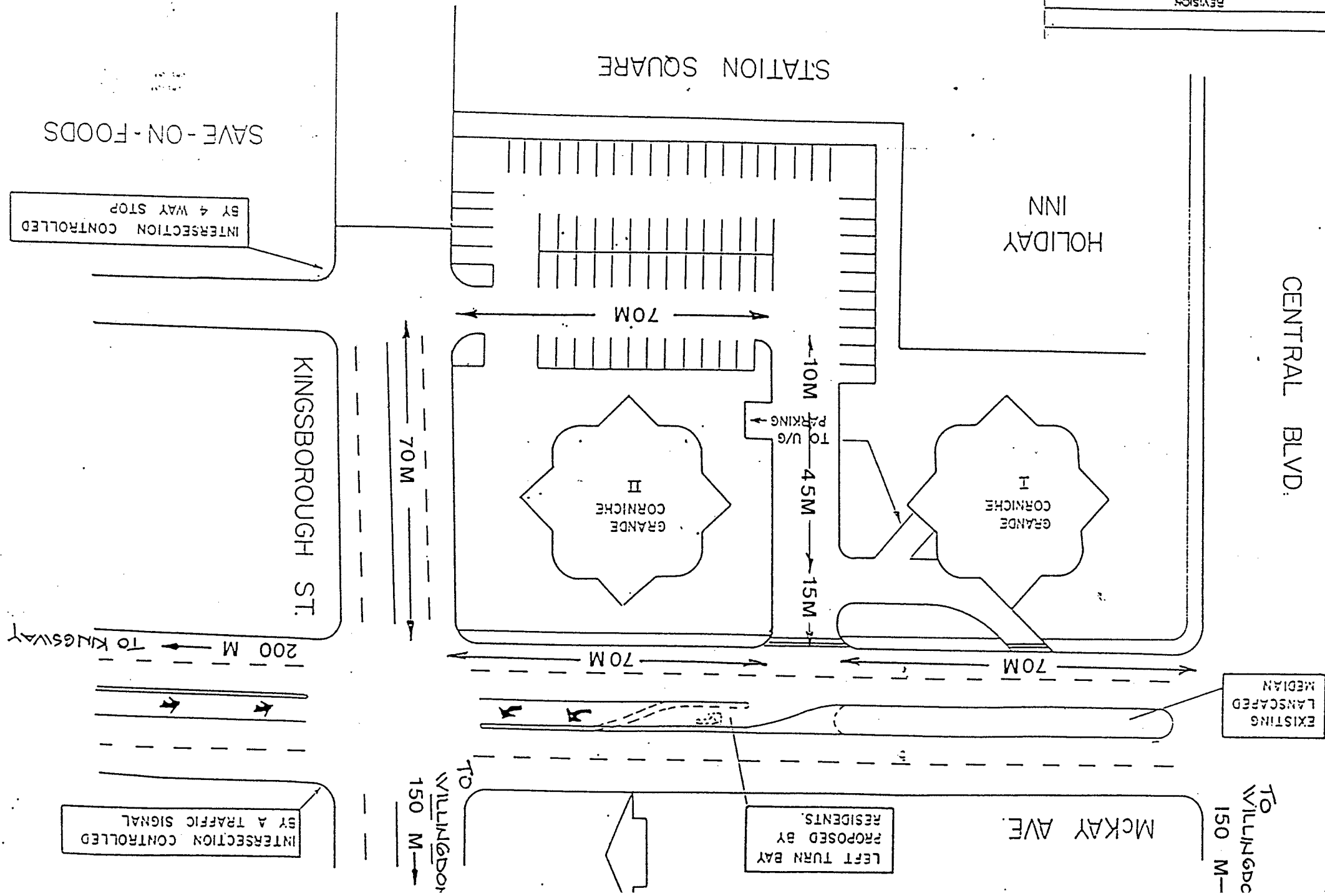
APPENDIX 2



86

NO.	DATE	REVISION

APPENDIX 3



INTERSECTION CONTROLLED BY 4 WAY STOP

INTERSECTION CONTROLLED BY A TRAFFIC SIGNAL

EXISTING LANDSCAPED MEDIAN

LEFT TURN BAY PROPOSED BY RESIDENTS.

SAVE-ON-FOODS

KINGSBOROUGH ST.

STATION SQUARE

HOLIDAY INN

CENTRAL BLVD.

66

GRANDE CORNICHE I

GRANDE CORNICHE II

MCKAY AVE.

TO WILLINGDON 150 M-

TO WILLINGDON 150 M-

200 M TO KINGSWAY

70M

70M

70M

70M

10M TO U/G PARKING

4.5M

15M

70M

TO WILLINGDON 150 M-

COMPARISON LEFT TURN IN/OUT OPTIONS AT THE GRANDE CORNICHE

Factor	Existing	Left Out to McKay	Left In from McKay	Left In/Out McKay
Access from north & west (Kingsborough & McKay intersection)	Kingsborough EB to 4-way stop; SB through Station Square south	n/a	McKay SB to LT at apartment saves 20 or 110m of travel distance	See "left in from McKay" previous
Access to the south & east	Station Square lot to Kingsborough and then through to Willingdon or LT via McKay to Central Blvd; also right out to McKay and LT at Kingsborough	Left out to McKay saves 220-265m auto travel distance or saves 140m if alternate access is to Willingdon via Kingsborough	n/a	See "left out to McKay" previous
Residents' perspective	Residents do not like travelling through Station Square or doing left turns at Kingsborough/Willingdon	Provides the greater benefit of a left turn in or out choice	Provides the least benefit of the 3 left turn options	Option most preferred by residents
Pedestrian safety	Minimizes crossings of McKay sidewalk			Maximizes crossings of McKay sidewalk
Vehicle safety	Vehicle/vehicle conflicts are restricted to controlled intersections - hence safest option	Probably the riskier of a left turn in or out choice (may also "attract" more traffic increasing exposure)		Mixed left turn vehicle conflict are maximized hence traffic safety is minimized
Capital cost	None added	All 3 left turn enhancement options require median reconstruction costing \$15,000-\$20,000. Median would have to be restored when travel demand for LT increases from McKay NB to Kingsborough WB increases.		