

TRAFFIC SAFETY COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: TRIAL TRAFFIC CIRCLE AT ALBERT STREET & ROSSER AVENUE

RECOMMENDATION:

1. THAT the trial roundabout at Albert Street & Rosser Avenue be removed, and the four-way stop be reinstalled.

REPORT

The Traffic Safety Committee, at its meeting held on 2007 February 06, received and adopted the *attached* report reviewing the operation of the trial roundabout installation on Albert Street at Rosser Avenue.

Respectfully submitted,

Councillor N. Volkow
Chair

Councillor S. Dhaliwal
Vice Chair

Councillor G. Evans
Member

Copied to: City Manager Director Engineering

TO: CHAIR AND MEMBERS
TRAFFIC SAFETY COMMITTEE

DATE: 2007 January 29

FROM: ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS

FILE:
Reference:

SUBJECT: Trial Traffic Circle At Albert Street & Rosser Avenue

PURPOSE: To review the operation of the trial roundabout installation on Albert Street at Rosser Avenue.

RECOMMENDATION:

1. **THAT** the trial roundabout at Albert Street & Rosser Avenue be removed, and the four-way stop be reinstalled.

REPORT

1.0 INTRODUCTION

At the 2006 April 04 Traffic Safety Committee meeting under New Business, a request was made to consider installation of a roundabout along Albert Street as a measure to address traffic complaints regarding driver infractions at four-way stops. Subsequently the recommendation to install a temporary roundabout at Rosser and Albert for a trial period was approved.

2.0 BACKGROUND

A temporary roundabout was installed at the intersection of Albert Street and Rosser Avenue on 2006 October 18. The installation consisted of advance warning signs, painted splitter islands on the approach, dashed "yield bars", yield signs, painted circle with temporary rubber curb inner island, and chevron signs. Diagram "A" shows the layout of the temporary roundabout showing the associated signs and markings.

3.0 PUBLIC REACTION

After the circle had been in place for several weeks, complaints were received (5) from pedestrians crossing at the intersection that were being crowded by drivers. Additional curved and dashed crosswalk lines were added in an attempt to better guide drivers and minimize conflicts. Additionally, several complaints (3) were logged citing drivers failing to yield adequately with some carrying to much speed when entering the intersection. Correspondence was also received from Ivan Hnatiuk, who resides on the 4200 block of Albert, which expressed an opinion that the four-way stop previously employed was better at managing traffic than the roundabout as it mitigated vehicle speeds better, and was safer for pedestrians.

To: Traffic Safety Committee
From: Asst. Director Engineering, Traffic & Eng. Systems
Re: Trial Traffic Circle At Albert Street & Rosser Avenue
2007 January 29..... Page 2

It was also noted that the roundabout was at odds with the route of the Giro di Burnaby bike races.

4.0 ANALYSIS

The proximity to Hastings Street in the Heights Merchants Commercial district and the Local Collector status of Albert Street mean that higher traffic and pedestrian volumes are experienced here than at other intersections with traffic circles in Burnaby. Therefore the “roundabout” design is more appropriate for right of way control at this intersection than the simpler set up needed for a “traffic circle”.

Ideally a roundabout should be equipped with corner bulges or chokers installed in advance of a raised splitter island which helps direct and slow traffic on entry and provides a crossing point for pedestrians that is set back from the intersection. With these chokers, sidewalks must be modified to properly direct pedestrians and some on-street parking is eliminated on the approaches to the intersection. Diagram “B” describes a roundabout configuration with advance chokers as it would appear at Albert & Rosser.

Constraints on the design of this roundabout dictated by its temporary nature may be limiting its effectiveness as indicated by the tone of the complaints. With this project, establishing chokers and set back pedestrian crossings was not feasible as modifying the sidewalks and curbs would have been cost prohibitive. Though of less importance, loss of on-street parking for adjacent residents (which is highly utilized) was also a design consideration.

Indirect routing for pedestrians traveling north/south or east/west, and the temptation for pedestrians to short-cut by crossing at the intersection is a common drawback of roundabout design. This temptation can be reduced with sidewalk modifications clearly defining the appropriate path. With the existing sidewalks left in place, pedestrians are naturally routed to the corners, making it more difficult to direct them and less intuitive for pedestrians to cross at a location away from an intersection. Finally, under the BC Motor Vehicle Act, a pedestrian crossing other than at an intersection should be signed and marked which adds to the already considerable signing associated with the intersection.

A fully constructed roundabout intersection consisting of approach chokers, reworked sidewalks, raised diverter islands, larger curb returns and a bigger centre circle may operate better than the four-way stop, but the capital cost of construction including storm sewer catch basin relocations could likely approach \$35,000 which limits our ability to retrofit an existing intersection, and there is no guarantee of improved performance.

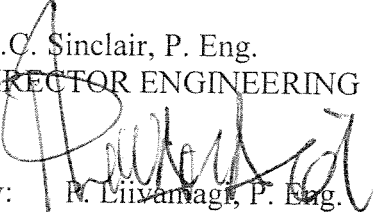
5.0 CONCLUSION

The temporary roundabout installed at Albert Street & Rosser Avenue has not had the desired effect on traffic. While there is no accident data from this relatively short trial indicating a safety hazard, the feedback logged from the public has been consistent with re-installing a four-way stop as the preferred solution for traffic control at this intersection. Without substantial sidewalk and curb work at the corners, Staff concur that pedestrian crossing is more intuitive and predictable under four-way stop control than with the roundabout.

To: Traffic Safety Committee
From: Asst. Director Engineering, Traffic & Eng. Systems
Re: Trial Traffic Circle At Albert Street & Rosser Avenue
2007 January 29..... Page 3

Constraints may have limited the effectiveness of this design, however a fully built roundabout at a similar locale may still provide an advantage over a four-way stop, although the cost of construction will undoubtedly limit opportunities to establish one in a retrofit situation.

W.C. Sinclair, P. Eng.
DIRECTOR ENGINEERING


By: R. Liivanagi, P. Eng.
ASST. DIRECTOR ENGINEERING,
TRAFFIC & ENGINEERING SYSTEMS

MDS:cg
Attachment

Copied to: City Manager

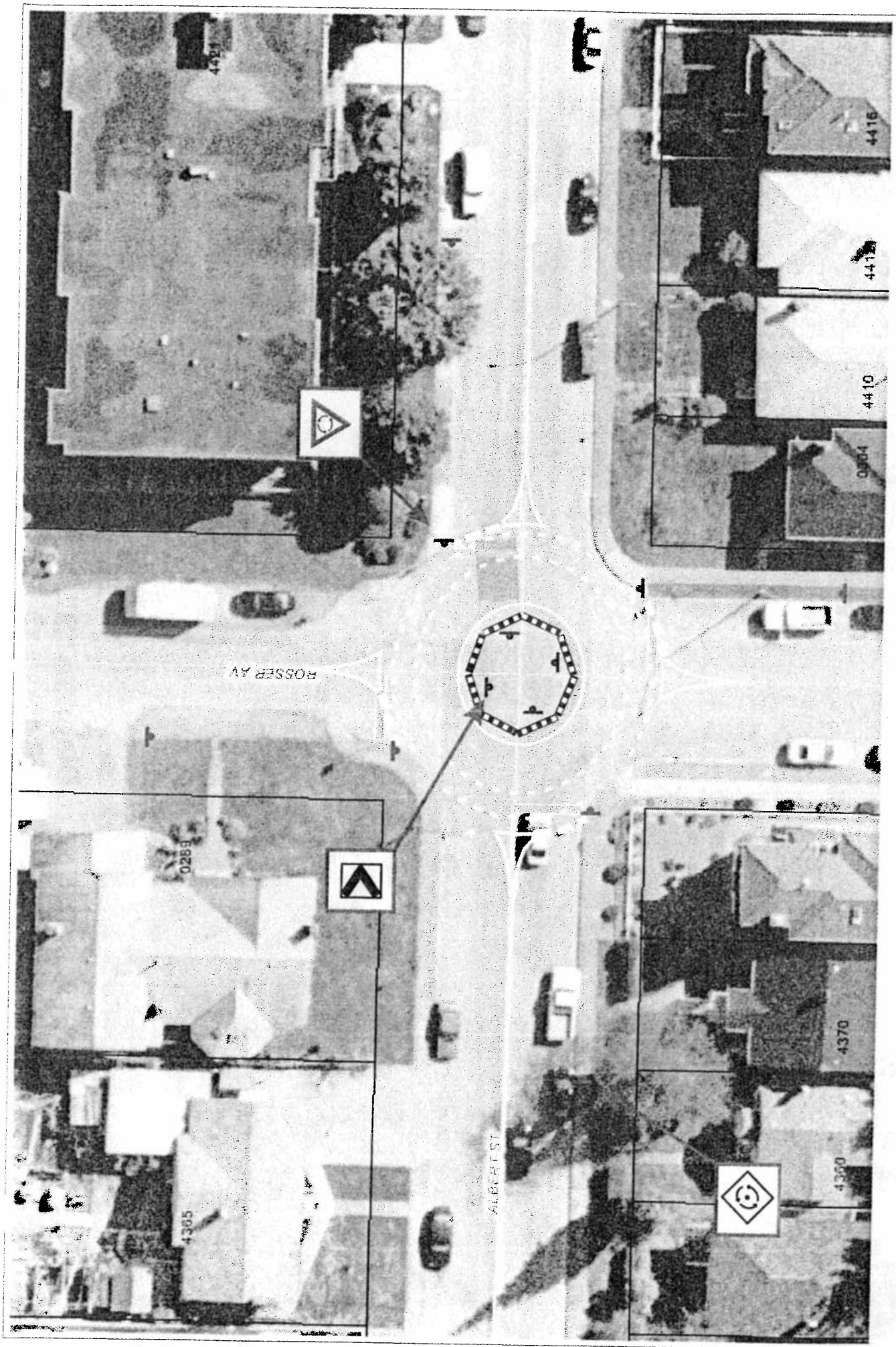


Diagram "A"
Temporary Roundabout @ Albert St & Rosser Ave

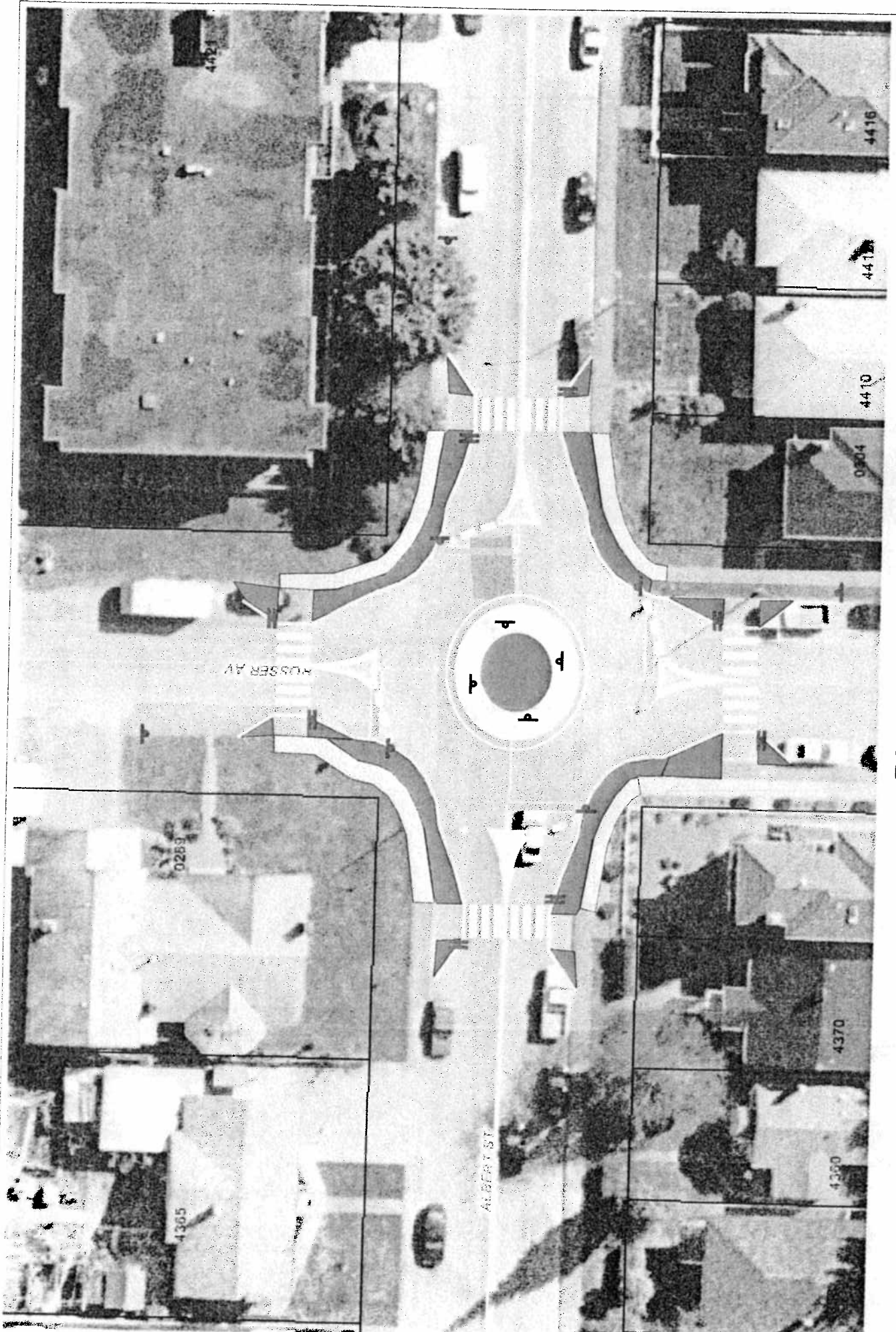


Diagram "B"
Typical Roundabout With Chokers @ Albert St & Rosser Ave