

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

REPORT
RAPPORT

Our File/N/Réf. **25 20-97-0202**
Your File/V/Réf.

DATE 10 June 1997

TO/DEST. Co-ordinator Transportation Committee

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

SUBJECT/OBJET **PEDESTRIAN SIGNAL AND TRAFFIC CONTROL SIGNAL
PROGRAMME - PHASE 2**

DEPARTMENTAL RECOMMENDATIONS

That the Transportation Committee recommend Council approve:

- 1. the installation of a traffic control signal at Woodroffe Avenue (Regional Road 15) and Strandherd Drive;**
- 2. the intersection modification for Woodroffe Avenue (Regional Road 15) and Strandherd Drive as shown in Annex F, and authorize the initiation of the public hearing process, as required by Sections 297 and 300 of the Ontario Municipal Act;**
- 3. the intersections listed in Annex C (2.) be further reviewed and included in the 1997 Traffic Control Signal Programme;**
- 4. that the policy established by Council (Item 1, TCR 92, 10 October 1984 refers), be amended to include only those locations that are warranted to the extent of 75% or greater in the next year's programme;**
- 5. no further action be taken at this time with respect to the installation of a traffic control signal at the locations listed in Annex C (3.);**
- 6. no further action be taken at this time with respect to the installation of a pedestrian signal at the locations listed in Annex A (3.).**

DISCUSSION

This report contains those locations studied in 1996 which require an intersection modification and therefore a public hearing for the proposed modifications so that a traffic control signal may be installed.

A. PEDESTRIAN SIGNAL PROGRAMME

None of the locations reviewed for a pedestrian signal satisfy the installation warrants, therefore no pedestrian signals are being recommended. Furthermore, none of the locations met the criteria to be reviewed in the 1997 Pedestrian Signal Programme.

The locations are summarized in order of percent warranted in Annex A. Survey data, location ranking and other information for the locations evaluated for possible pedestrian signal installation are summarized in alphabetical order in Annex B.

It is proposed that no further action is required at this time to review the locations listed in Annex A (3.) for possible installation of a pedestrian signal.

B. TRAFFIC CONTROL SIGNAL PROGRAMME

The locations are summarized in order of percent warranted in Annex C. Survey data, intersection ranking and other information for the traffic control signal locations are summarized in alphabetical order in Annex D.

Warranted Locations

There are four locations that satisfy the warrants for a traffic control signal, however only one location is recommended for installation of a traffic control signal at this time. A location plan showing the four warranted signal locations is attached as Annex E. The warranted locations are presented below in order of priority ranking.

Woodroffe Avenue (Regional Road 15) and Strandherd Drive/Stoneway Drive

Analyses of 1995 data indicated that a traffic control signal is warranted at this intersection (refer Annex D, page 3). However, for a traffic control signal to operate safely and effectively, it is necessary to construct northbound and southbound left-turn lanes plus appropriate taper (refer Annex F).

This location was previously presented in the 1995 Pedestrian Signal and Traffic Control Signal Programme - Phase 2 report. At that time, Strandherd Drive was to be realigned to the south of its present location and traffic control signals were to be installed. The City of Nepean has moved the realignment date to the year 2000 or beyond.

Also, at the presentation of the above-mentioned report, no cost estimates were available for signal installation and intersection modification. The Department recommended bringing the location back to Committee in a subsequent report.

In the years 1993 to 1995, two right angle collisions have been reported at this intersection. Both collisions involved eastbound left-turning vehicles failing to yield to northbound vehicles; both occurred in the a.m. peak hours (7:00 - 9:00). This type of collision is deemed preventable by the installation of a traffic control signal. No right angle collisions have been reported between 1 January and 30 June 1996. Right angle collisions are deemed preventable by the installation of a traffic control signal.

Therefore, it is recommended that a traffic control signal be installed at the intersection of Woodroffe Avenue and Strandherd Drive in conjunction with the proposed intersection modification.

The estimated costs are:

- a. \$70,000 for a traffic control signal; and
- b. \$167,927 for an intersection modification.

Moodie Drive (Regional Road 11) and West Hunt Club Road (Regional Road 32)

A motion by the Transportation Committee on 25 October 1996 directed that this location be brought forward at this time to have the installation of a traffic control signal and the required roadway modifications, including the realignment of the east/west legs of the intersection, approved.

Analyses of the most recent data indicate that a traffic control signal is warranted at this intersection (refer Annex D, page 2). A redesign of the intersection is required which includes the realignment of the east and west legs of the intersection and further that all four approaches of the intersection be widened to accommodate left-turn lanes. Installing traffic control signals without these modifications would result in more congestion than currently exists with the multi-way stop control.

To accommodate the above modifications, land must be acquired from the National Capital Commission (NCC). Upon completion of preliminary design options for the required modifications, negotiations to acquire the necessary land will be undertaken.

It is proposed that once the land is acquired for construction of the new alignment and a final design has been prepared, a report recommending the proposed realignment/modification and installation of a traffic control signal would be immediately brought forward for the consideration of Transportation Committee.

Huntley Road (Regional Road 5) and Flewellyn Road

Analyses of data indicate that a traffic control signal is currently warranted at this intersection (refer Annex D, page 2). However, if a traffic control signal is to be installed, an intersection modification is required which includes the roadway widening on three of the four approaches to accommodate the construction of left-turn lanes plus appropriate taper. Installing traffic control signals without these modifications would result in more congestion than currently exists with the multi-way stop control.

Although the traffic volumes on both the major road and minor road are above the warrant values for the installation of traffic control signals, there is no collision problem. There has been only one right angle collision reported in the three years 1993 to 1995. The collision occurred in December 1995 on an icy road surface involving a driver losing control of an eastbound left-turning vehicle and sliding into a stopped southbound vehicle. One angle collision has been reported between 1 January and 30 June 1996. This collision involved heavy road construction equipment moving through the intersection which failed to yield to the other vehicle.

Therefore, since multi-way stop control currently exists and there is no high collision experience, it is proposed that no action be taken at this time to upgrade intersection control to traffic control signals. However, the location should continue to be reviewed for operational problems for which traffic control signals may be the solution.

Albion Road (Regional Road 25) and Rideau Road

Analyses of data indicate that a traffic control signal is currently warranted at this intersection (refer Annex D, page 3). However, for a traffic control signal to operate effectively, an intersection modification is required which includes the roadway widening on all four approaches to accommodate the construction of left-turn lanes plus appropriate taper. The preliminary design indicates that property acquisition will be required in order to provide for the above-noted modification. Due to the time required to provide a detailed design and procure the required property, construction could not occur in 1997. Therefore, it is recommended that approval for installation of a traffic control signal and the required intersection modification be deferred to a subsequent report.

Other Locations

In accordance with Council's resolution of 10 October 1984, the top 25 unwarranted locations are forwarded for review in the next year's Signal Programme. However, if the list of locations in Annex C is examined within the top 25 locations, some locations have very low warrant percentages. Further, a traffic survey at a typical location costs approximately \$400 which includes the actual survey, the subsequent data entry and the analysis of that data. It is the Department's proposal that only locations that have a percent warrant of 75 or greater be included in the next year's Programme.

Assuming the Policy change is acceptable, it is proposed that the locations listed in Annex C (2.) (75% or greater) be included in the 1997 Pedestrian Signal and Traffic Control Signal Programme and that the locations listed in Annex C (3.) (74% or less) not be included for review for a traffic control signal in the 1997 Programme.

CONSULTATION

A draft of this report was circulated to the Regional Cycling Advisory Group (RCAG) for comments. RCAG's comments will be available at the Transportation Committee meeting.

Temporary signs advising pedestrians and motorists that "roadway modifications and traffic lights" are proposed have been placed at the intersection of Woodroffe Avenue (Regional Road 15) and Strandherd Drive. The sign also provides a number for people to call to register their comments. Results of the consultation will be available at the Transportation Committee meeting.

FINANCIAL STATEMENT

Funds have been provided in the 1997 Capital Budget, Account No. 912-37140, Traffic Control Signal Programme (reference page 117), and Account No. 912-30708, Safety Improvement Programme (reference page 103).

*Approved by
Doug Brousseau*

HLD/JAF/sc

Attach. (6)

**1996 PEDESTRIAN SIGNAL PROGRAMME
PHASE 2**

Priority Listing

	<u>Location</u>	<u>Percent Warranted</u>
(1.)	<u>Locations Recommended for Action</u>	
	None	
(2.)	<u>Locations at which Further Review is Proposed</u>	
	None	
(3.)	<u>Locations at which No Further Review is Proposed</u>	
	Data Centre Road at Transit Station	69
	Sussex Drive - west end of Ottawa City Hall	64
	Kirkwood Avenue at Clare Street	39
	Regional Road 36 (Hazeldean Rd) between Carbrooke Street and Castlefrank Road	32
	Regional Road 38 (Carling Ave) at Corkstown Road	26
	Kirkwood Avenue at Iona Street	25
	Bank Street between Nottinghill Avenue and Vancouver Avenue	22
	Regional Road 49 (Eagleson Rd) at Cycling Path between Rothsay Drive and Stonehaven Drive	22
	Montreal Road at Cummings Avenue	9
	Carling Avenue at Bromley Road	8
	Carling Avenue at Royal Ottawa Hospital Access	6

1996 PEDESTRIAN SIGNAL PROGRAMME

Location	Rank	Percent Warrant Met (Based on Lowest Warrant)	Major Street Volume (12 hrs)	No. of Pedestrians Crossing (8 hrs)	No. of Children Crossing (8 hrs)	No. of Senior Citizens Crossing (8 hrs)	Day and Date of Count	No. of Pedestrian Accidents Total (3 yrs - 1993-1995)	Comments
Bank Street between Nottinghill Ave. and Vancouver Ave.	7	22	27,111	76	9	6	Friday 12 Jul 96	0	- mid-block crossing
Carling Avenue at Bromley Road - north roadway	10	8	9,880	48	1	15	Friday 5 Jul 96	0	
Carling Avenue at Royal Hospital access - south roadway	11	6	6,010	43	0	6	Wednesday 29 May 96	0	
Data Centre Road at Transit Station	1	69	2,727	506	6	17	Tuesday 28 May 96	0	- east of Heron Rd.
Kirkwood Avenue at Clare Street	3	39	9,670	97	8	6	Thursday 23 May 96	1	- higher # of delays than at Iona
Kirkwood Avenue at Iona Street	6	25	9,670	80	15	11	Tuesday 28 May 96	0	
Montreal Road at Cummings Avenue - north roadway	9	9	9,625	32	0	2	Wednesday 22 May 96	0	

Location	Rank	Percent Warrant Met (Based on Lowest Warrant)	Major Street Volume (12 hrs)	No. of Pedestrians Crossing (8 hrs)	No. of Children Crossing (8 hrs)	No. of Senior Citizens Crossing (8 hrs)	Day and Date of Count	No. of Pedestrian Accidents Total (3 yrs - 1993-1995)	Comments
Regional Road 36 (Hazeldean Rd) between Carbrooke St and Castlefrank Rd	4	32	15,302	60	14	0	Thursday 1 Aug 96	0	- mid-block crossing or at private access
Regional Road 38 (Carling Ave) at Corkstown Road	5	26	12,503	61	0	32	Thursday 11 Jul 96	0	
Regional Road 49 (Eagleson Rd) at Cycling Path	8	22	10,327	52	6	0	Thursday 15 Aug 96	0	- between Rothsay and Stonehaven - mid-block crossing
Sussex Drive at West End of Ottawa City Hall	2	64	17,735	158	0	7	Wednesday 22 May 96	0	- east of King Edward Avenue

**1996 TRAFFIC CONTROL SIGNAL PROGRAMME
PHASE 2**

Priority Listing

<u>Location</u>	<u>Percent Warranted</u>
(1.) <u>Locations Recommended for Action</u>	
Regional Road 15 (Woodroffe Ave) and Strandherd / Stoneway Drives	100
(2.) <u>Locations at which Further Review is Proposed</u>	
Regional Road 11 (Moodie Dr) and Regional Road 32 (West Hunt Club Rd)	100
Regional Road 5 (Huntley Rd) and Flewellyn Road	100
Regional Road 25 (Albion Rd) and Rideau Road	100
Lynda Lane and Smyth Road	98
Raymond Street and Rochester Street	95
Regional Road 5 (Carp Rd) and Regional Road 49 (March Rd)	95
Regional Road 59 (Richmond Rd) and Seyton Drive	93
Regional Road 57 (Trim Rd) and Watters Road	90
Regional Road 14 (Leitrim Rd) and Hawthorne Road	90
Churchill Avenue and Clare Street	88
Regional Road 55 (Jeanne d'Arc Blvd) and Hunters Run Drive	87
Regional Road 55 (Jeanne d'Arc Blvd) and des Epinettes Boulevard	85
Regional Road 12 (Fallowfield Rd) and Larkin Drive	82
Regional Road 30 (Innes Rd) and Prestwick Drive	81
Highway 17 - eastbound exit ramp and Lees Avenue	81

**1996 TRAFFIC CONTROL SIGNAL PROGRAMME
PHASE 2**

Priority Listing

	<u>Location</u>	<u>Percent Warranted</u>
(2.)	<u>Locations at which Further Review is Proposed</u>	
	Bay Street and Gladstone Avenue	77
	Regional Road 6 (Roger Stevens Dr) and Regional Road 13 (Rideau Valley Dr) - west intersection	77
	Bell Street and Gladstone Avenue	77
	Regional Road 56 (Orléans Blvd) and Forest Valley Drive	75
(3.)	<u>Locations at which No Further Review is Proposed</u>	
	Regional Road 23 (Credarview Rd) and Cassidy Road	71
	Regional Road 59 (Moodie Dr) and Timm Drive	69
	Clare Street and Kirkwood Avenue	68
	Regional Road 55 (Jeanne d'Arc Blvd) and Belcourt Boulevard	65
	Regional Road 26 (Colonial Rd) and Frank Kenny Road	63
	Iona Street and Kirkwood Avenue	63
	Hunt Club Road and Paul Anka Drive	44
	Regional Road 30 (Innes Rd) and Belcourt Boulevard	29

1996 TRAFFIC CONTROL SIGNAL PROGRAMME

Location	Rank	Percent Warrant Met	Total Approach Volume Major Street (8 hrs)	Total Approach Volume Minor Street (8 hrs)	No. of Pedestrians Crossing Major Street (8 hrs)	No. of Preventable Collisions Average per Year. (for 3 yrs. 1 Jan 93-31 Dec 95)	Day and Date of Count	Comments
Bay Street and Gladstone Avenue	16	77	6,876	320	305	1.67	Tuesday 30 Apr 96	
Bell Street and Gladstone Avenue	18	77	7,150	765	259	3.00	Friday 3 May 96	
Churchill Avenue and Clare Street	10	88	6,260	867	197	1.00	Wednesday 15 May 96	
Clare Street and Kirkwood Avenue	22	68	7,602	753	130	1.67	Wednesday 29 May 96	- meets 48% of multi-way stop control warrants
Highway 417 east-bound exit ramp and Lees Avenue	15	81	2,761	2,328	18	1.33	Monday 3 Jun 96	- existing multi-way stop control with flashing red facing Lees Ave.
Hunt Club Road and Paul Anka Drive	26	44	16,418	600	6	1.00	Wednesday 15 May 96	
Iona Street and Kirkwood Avenue	25	63	6,938	489	62	0.33	Thursday 23 May 96	- meets 8 % of multi-way stop control warrants

1996 TRAFFIC CONTROL SIGNAL PROGRAMME

Location	Rank	Percent Warrant Met	Total Approach Volume Major Street (8 hrs)	Total Approach Volume Minor Street (8 hrs)	No. of Pedestrians Crossing Major Street (8 hrs)	No. of Preventable Collisions Average per Year. (for 3 yrs. 1 Jan 93-31 Dec 95)	Day and Date of Count	Comments
Lynda Lane and Smyth Road	5	98	12,562	1,178	84	1.33	Thursday 30 May 96	
Raymond Street and Rochester Street	6	95	5442	2,373	173	3.33	Thursday 5 May 94	- traffic volumes from 1994
Regional Road 5 (Huntley Rd) and Flewellyn Road	2	100	3,533	1,853	2	0.33	Thursday 13 Jun 96	- existing multi-way stop control
Regional Road 5 (Carp Rd) and Regional Road 49 (March Rd)	7	95	2,781	2,104	4	0.00	Thursday 23 May 96	- existing multi-way stop control
Regional Road 6 (Roger Stevens Rd) and Regional Rd 13 (Rideau Valley Dr) - west intersection	18	77	1,631	1,486	0	0.33	Tuesday 28 May 96	- existing multi-way stop control
Regional Road 11 (Moodie Dr) and Regional Road 32 (West Hunt Club Rd)	1	100	7,489	2,341	12	1.67	Thursday 20 Jun 96	- as 4-way intersection

1996 TRAFFIC CONTROL SIGNAL PROGRAMME

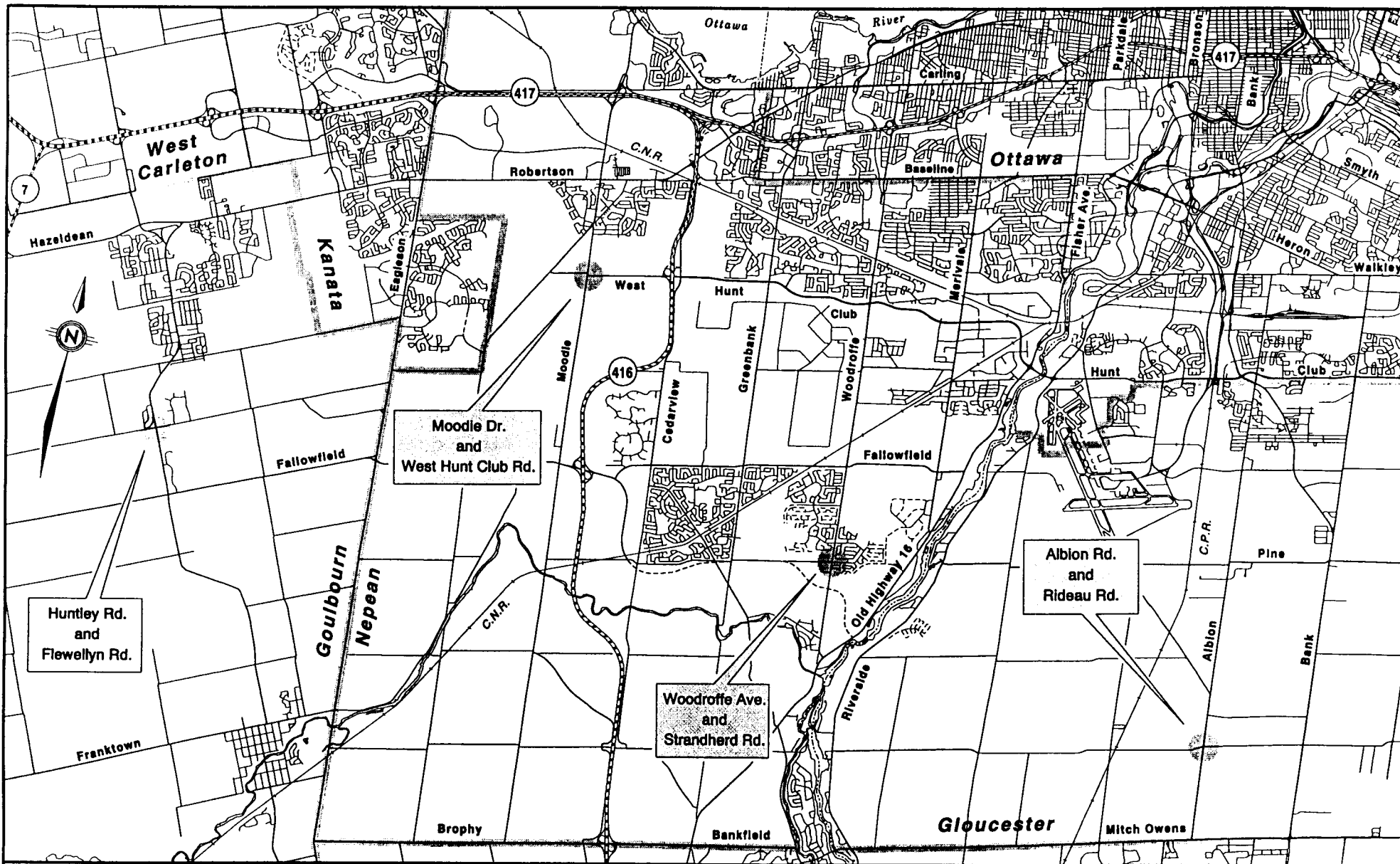
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Regional Road 12 (Fallowfield Rd) and Larkin Drive	14	82	6,030	905	1	0.33	Wednesday 15 May 96	
Regional Road 14 (Leitrim Rd) and Hawthorne Road	10	90	2,169	1,779	1	1.00	Thursday 9 May 96	- existing multi-way stop control
Regional Road 15 (Woodroffe Ave) and Strandherd Road	3	100	3,761	1,406	2	0.66	Thursday 4 May 96	- traffic volumes from 1995 - 88% warranted for multi-way stop control
Regional Road 23 (Cedarview Rd) and Cassidy Road	21	71	4,942	1,523	73	N/A	Wednesday 29 May 96	- new relocated intersection alignment / no collision history
Regional Road 25 (Albion Rd) and Rideau Road	4	100	4,322	1,026	0	4.00	Thursday 23 May 96	- based on 12 right angle collisions / only 92 % based on volumes. - req's expd. pavement markings.
Regional Road 28 (Colonial Rd) and Frank Kenny Road	25	63	1,813	637	0	0.00	Thursday 23 May 96	

1996 TRAFFIC CONTROL SIGNAL PROGRAMME

Location	Rank	Percent Warrant Met	Total Approach Volume Major Street (8 hrs)	Total Approach Volume Minor Street (8 hrs)	No. of Pedestrians Crossing Major Street (8 hrs)	No. of Preventable Collisions Average per Year. (for 3 yrs. 1 Jan 93-31 Dec 95)	Day and Date of Count	Comments
Regional Road 30 (Innes Rd) and Belcourt Boulevard	28	29	10,735	600	5	0.33	Wednesday 8 May 96	
Regional Road 30 (Innes Rd) and Prestwick Drive	15	81	7,034	878	30	1.00	Thursday 9 May 96	
Regional Road 55 (Jeanne d'Arc Blvd) and Belcourt Boulevard	24	65	5,767	487	80	1.33	Monday 3 Jun 96	- pedestrian signal approved by Council in phase 1 report (27 Nov 96)
Regional Road 55 (Jeanne d'Arc Blvd) and des Epinettes Boulevard	13	85	5,147	2,510	283	1.67	Monday 13 May 96	- existing multi-way stop control
Regional Road 55 (Jeanne d'Arc Blvd) and Hunters Run Drive	12	87	7,530	1,034	9	2.33	Tuesday 14 May 96	
Regional Road 56 (Orléans Blvd) and Forest Valley Drive	20	75	5,952	1,050	47	2.67	Wednesday 29 May 96	

1996 TRAFFIC CONTROL SIGNAL PROGRAMME

Location	Rank	Percent Warrant Met	Total Approach Volume Major Street (8 hrs)	Total Approach Volume Minor Street (8 hrs)	No. of Pedestrians Crossing Major Street (8 hrs)	No. of Preventable Collisions Average per Year. (for 3 yrs. 1 Jan 93-31 Dec 95)	Day and Date of Count	Comments
Regional Road 57 (Trim Rd) and Watters Road	8	90	2,652	1,204	7	1.33	Monday 27 May 96	
Regional Road 59 (Richmond Rd) and Seyton Drive	8	93	9,040	812	37	2.33	Friday 3 May 96	
Regional Road 59 (Moodie Dr) and Timm Drive	22	69	9,045	1,301		3.00	Friday 3 May 96	



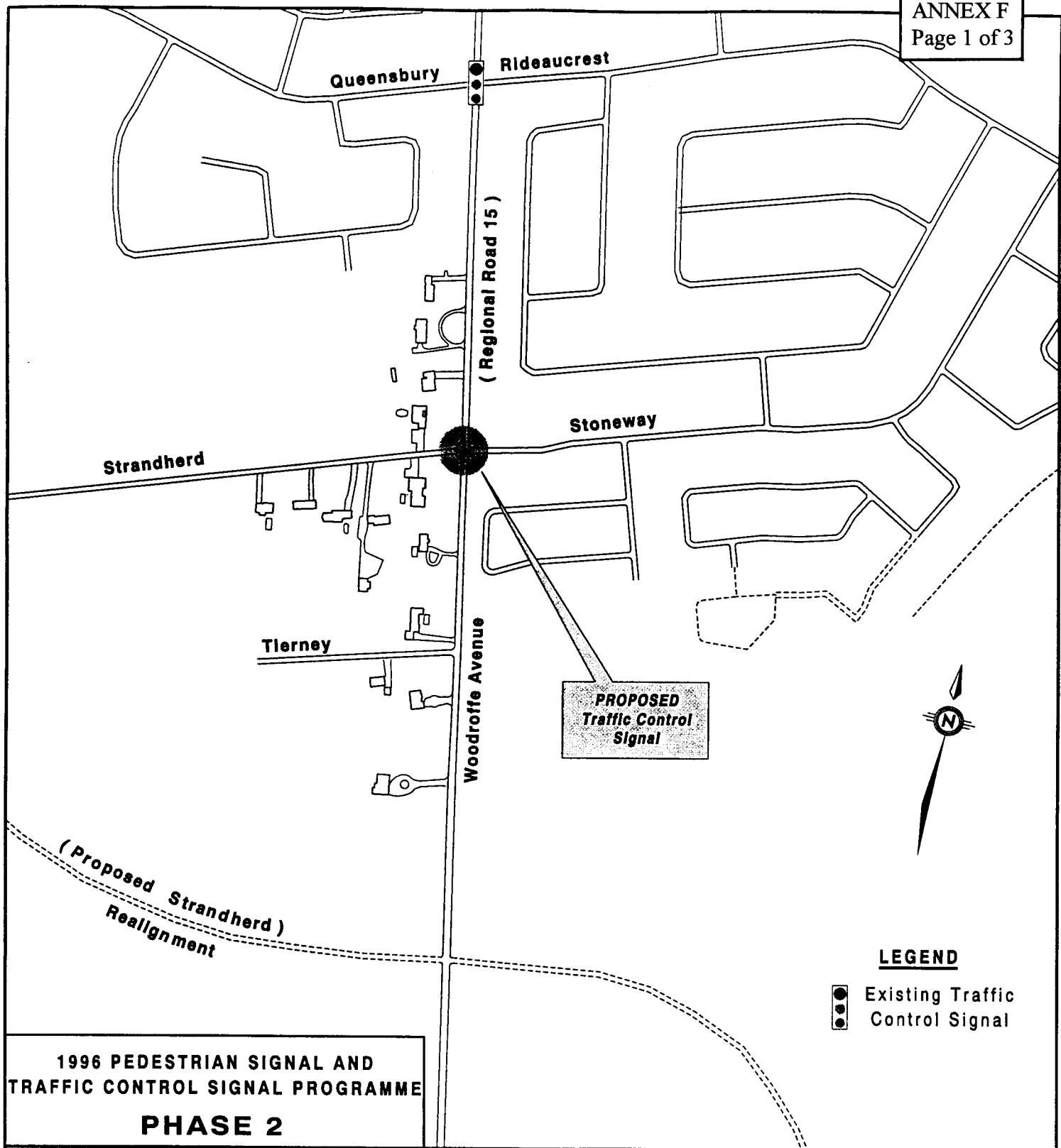
**1996 PEDESTRIAN SIGNAL AND
TRAFFIC CONTROL SIGNAL PROGRAMME
PHASE 2
Location Plan**

SCALE	DRAWN BY	CHECKED BY
N.T.S.	G.P.	H.L.D.
5007s1 - LP	DATE	APPROVED BY
	MAR. '97	J.A.F.



MOBILITY SERVICES
Environment & Transportation Department

ANNEX E



1996 PEDESTRIAN SIGNAL AND
TRAFFIC CONTROL SIGNAL PROGRAMME
PHASE 2

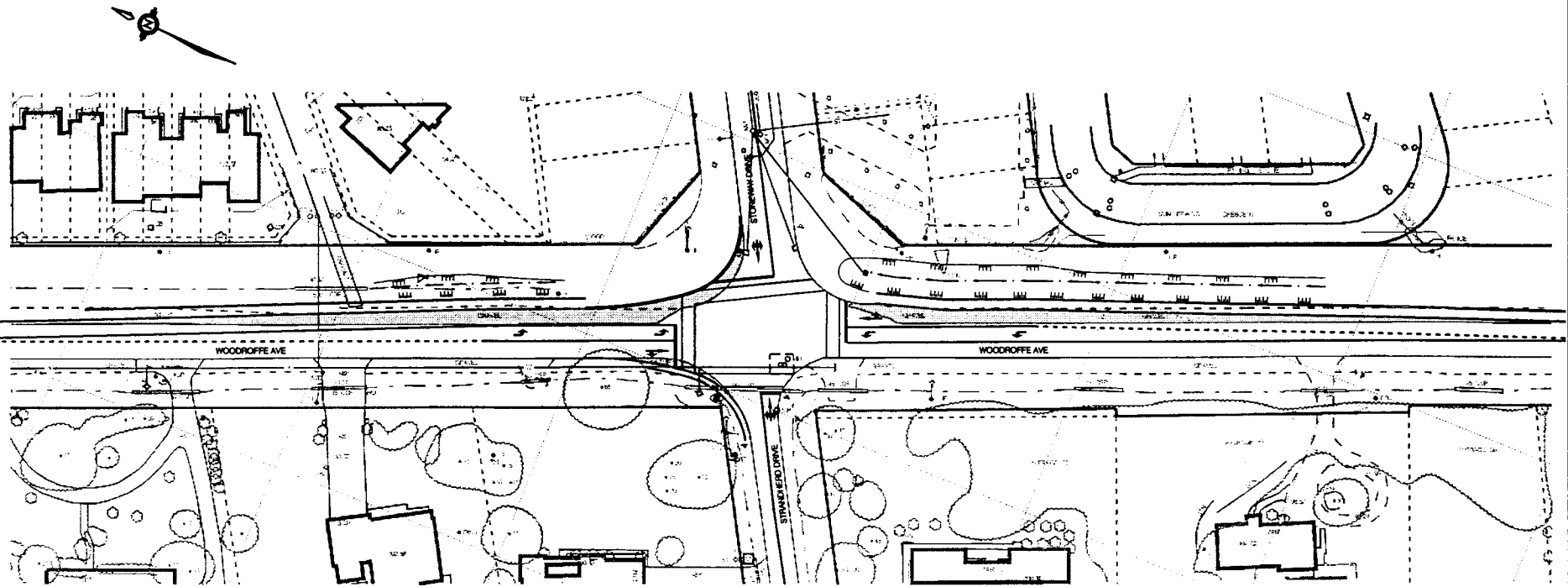
**Woodroffe Avenue (Regional Road 15)
and
Strandherd Road**

SCALE N.T.S.	DRAWN BY G.P.	CHECKED BY H.L.D.
5007s3-tcs	DATE MAR. '97	APPROVED BY J.A.F.



Ottawa-Carleton

MOBILITY SERVICES
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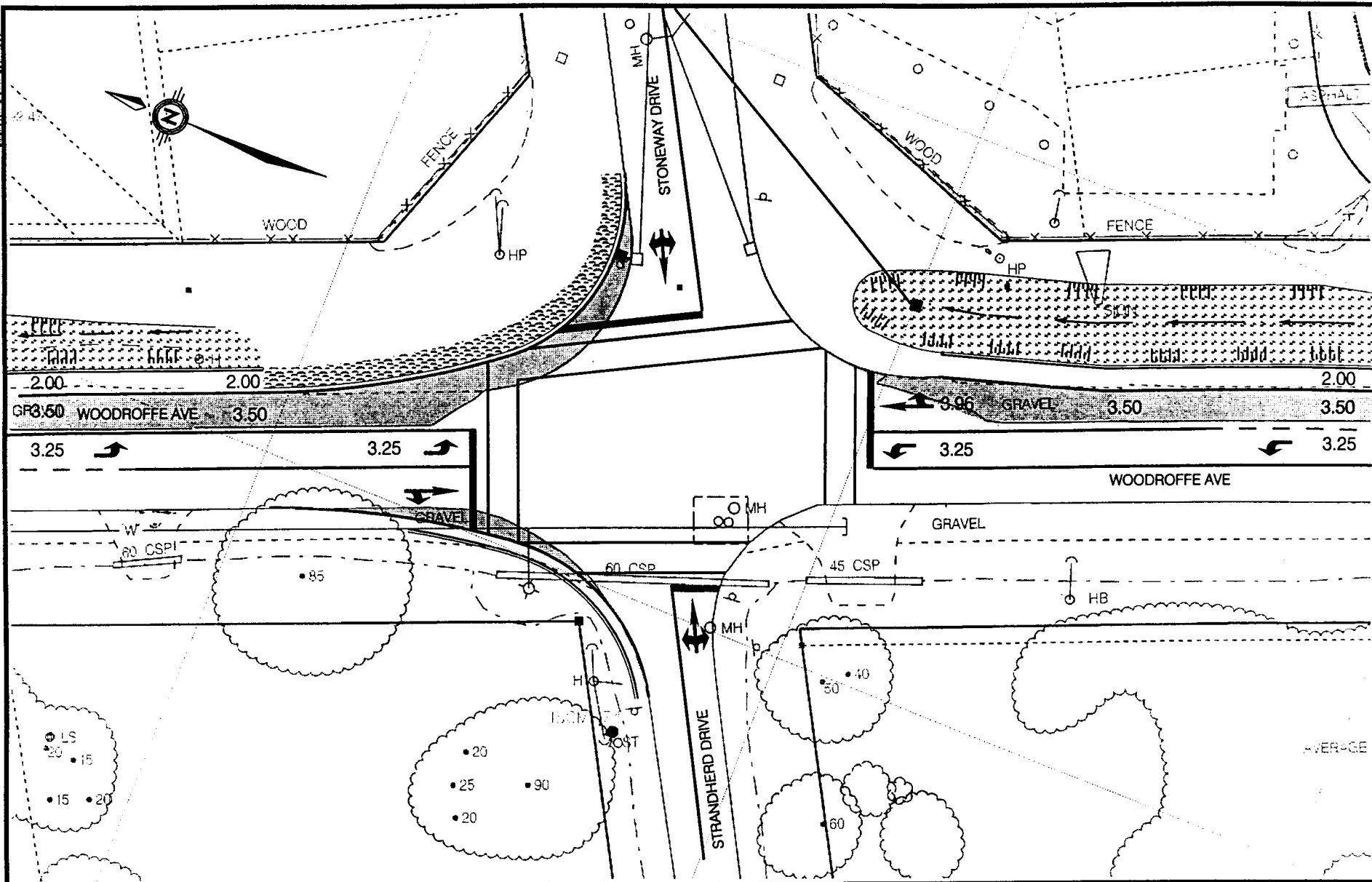
INTERSECTION MODIFICATION
WOODROFFE AVE.
AND STONEWAY / STRANDHERD

OTTAWA – CARLETON
ENVIRONMENT AND TRANSPORTATION
DEPARTMENT

SCALE N.T.S.	DRAWN BY D.B.S.	CHECKED BY D.B.S.
SM-3000a	DATE OCT. 96	APPROVED BY

BRANCH ROADWAY DESIGN AND CONSTRUCTION

Submitted: 8/5/19/96 1993



INTERSECTION MODIFICATION
WOODROFFE AVE.
AND STONEWAY / STRANDHERD DR.

OTTAWA – CARLETON

ENVIRONMENT AND TRANSPORTATION
DEPARTMENT

SCALE
1 : 500

DRAWN BY
D.B.S.

CHECKED BY
D.B.S.

SM-3000b

DATE
OCT. 96

APPROVED BY

BRANCH

ROADWAY DESIGN AND CONSTRUCTION

ANNEX F
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