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

# REPORT RAPPORT

Our File/N/Réf. Your File/V/Réf.	<b>50</b> 20-98-0202
DATE	22 May 1998
TO/DEST.	Co-ordinator Transportation Committee
FROM/EXP.	Director Mobility Services and Corporate Fleet Services Environment and Transportation Department
SUBJECT/OBJET	1997 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 the following two intersections in conjunction with the proposed roadway modifications for each intersection;
  - a. Albion Road (Regional Road 25) and Rideau Road; and;
  - b. Trim Road (Regional Road 57) and Watters Road;
- 2. the roadway modifications for the above two intersections as shown in Annex F (pages 2-4) and Annex G (pages 2-3), 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 1998 Traffic Control Signal Programme;
- 4. 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);
- 5. no further action be taken at this time with respect to the installation of a pedestrian signal at the locations listed in Annex A (2).

#### DISCUSSION

This report presents the results of the signal warrant analysis for all the locations studied in 1997, except those previously dealt with in the 1997 Phase 1 report.

#### A. <u>PEDESTRIAN SIGNAL PROGRAMME</u>

None of the locations reviewed for a pedestrian signal are yet fully warranted; therefore, no pedestrian signals are being recommended. Furthermore, at none of the locations were the pedestrian volumes high enough to justify re-study in the 1998 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 be taken to review the locations listed in Annex A (2) 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 two of the locations are recommended for installation. A location plan showing all four warranted signal locations is attached as Annex E. The warranted locations are presented below in order of priority ranking.

#### Albion Road (Regional Road 25) and Rideau Road

This is a rural location previously reviewed in 1996 and based on analyses of the 1996 data, a traffic control signal was warranted at this intersection (refer Annex D, page 1). However, for a traffic control signal to operate safely and effectively, it is necessary to construct left-turn lanes plus appropriate taper on all four approaches to the intersection (refer Annex F).

The need for property acquisition and detail design required for the above-noted modification postponed the recommendation to install a traffic control signal in the 1996 programme.

In the years 1995 to 1997, 10 right angle collisions have been reported at this intersection. 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 Albion Road and Rideau Road in conjunction with the proposed intersection modification.

The estimated costs are:

- a. \$85,000 for a traffic control signal; and
- b. \$615,000 for the intersection modification.

#### Trim Road (Regional Road 57) and Watters Road

Analyses of 1997 data indicate that a traffic control signal is currently warranted at this intersection (refer Annex D, page 6). However, for a traffic control signal to operate safely and effectively, an intersection modification is required which includes the construction of northbound left-turn and southbound left-turn and right-turn lanes plus appropriate taper (refer Annex G).

In the years 1995 to 1997, eight right angle collisions have been reported at this intersection. 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 Trim Road and Watters Road in conjunction with the proposed intersection modification. Since Trim Road is on the Cycling Transportation Network (CTN), 2.0 metre cycling lanes are included in the design.

The estimated costs are:

- a. \$85,000 for a traffic control signal; and
- b. \$225,000 for the intersection modification.

#### Huntley Road (Regional Road 5) and Flewellyn Road

This is a rural location previously reviewed in 1996 and based on analyses of the 1996 data, a traffic control signal is warranted at this intersection (refer Annex D, page 2). However, for a traffic control signal to operate safely and effectively, it is necessary to construct left-turn lanes plus appropriate taper on all four approaches to the intersection. Currently, multi-way stop control is the existing control at the intersection.

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 major collision problem. There have been only four right angle collisions reported in the three years 1995 to 1997, none of which occurred in 1997.

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.

The preliminary estimated costs are:

- a. \$85,000 for a traffic control signal; and
- b. \$275,000 for the intersection modification.

#### Albion Road (Regional Road 25) and Mitch Owens Rideau Road (Regional Road 8)

Analyses of 1997 data indicate that a traffic control signal is currently warranted at this rural intersection (refer Annex D, page 4). However, for a traffic control signal to operate safely and effectively, an intersection modification is required which includes the construction of eastbound and southbound left-turn lanes plus appropriate taper.

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 right angle collision problem. In the years 1995 to 1997, no right angle collisions have been reported at this intersection. Right angle collisions are deemed preventable by the installation of a traffic control signal.

As well, in the summer of 1997 the shoulder was paved to provide a "slip around" for eastbound through traffic which has helped to alleviate the congestion caused by the heavy eastbound left-turn vehicle volume. This has improved the overall operation of this intersection.

Therefore, 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 only solution.

The preliminary estimated costs are:

- a. \$85,000 for a traffic control signal; and
- b. \$295,000 for the intersection modification.

#### Other Locations

In accordance with Council's resolution of 09 July 1997, only those locations that are warranted to the extent of 75% or greater are forwarded for review in the next year's Signal Programme.

Therefore, it is proposed that the locations listed in Annex C (2) (75% or greater) be included in the 1998 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 1998 Programme.

#### CONSULTATION

A draft of this report was circulated to the Regional Cycling Advisory Group (RCAG) for comments. RCAG comments, if any, will be available at the Transportation Committee meeting. Also, the "raw" data contained in the annexes to this report have been circulated to the Chair and Members of Council.

Temporary signs advising pedestrians and motorists that "roadway modifications and traffic lights are proposed" have been placed at the two intersections recommended for a traffic control signal. The sign also provides a number (560-2108) for people to call to register their comments. Results of the consultation will be available at the Public Hearing.

#### FINANCIAL STATEMENT

Funds have been provided in the 1998 Capital Budget, Account No. 912-37140, Traffic Control Signal Programme (page 157) and Account No. 912-30708, Safety Improvement Programme (page 133).

Approved By Doug Brousseau

HLD/sc

Attach. (7)

### ANNEX A

#### 1997 PEDESTRIAN SIGNAL PROGRAMME PHASE 2

### Priority Listing

	Location	Percent Warranted
(1)	Locations Recommended for Installation	
	None	
(2)	Locations at which No Further Review Is Proposed	
	Kirkwood Avenue at Clare Street	39
	Kirkwood Avenue at Iona Street	20
	Beechwood Avenue at Jolliet Avenue	17
	McArthur Avenue at Cyr Street	15
	Bearbrook Road (Reg Rd 28) at pedestrian path between Centre Park Drive and West Park Drive - south	14
	Bank Street (Reg Rd 85) at St. Bernard Street	12
	Fisher Avenue at Normandy Crescent - north intersection	12
	Meadowlands Drive (Reg Rd 51) at Perry Street	10
	Fallowfield Road (Reg Rd 12) at Montana Way pedestrian path	10
	Maitland Avenue at Lenester Avenue	5
	Perth Street (Reg Rd 10) at Murray Street	2

# 1997 PEDESTRIAN SIGNAL PROGRAMME - PHASE 2

### ANNEX B Page 1 of 2

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 - 1994-1996)	Comments
Bank Street (RR-85) at St. Bernard Street	6	12	10,812	64	18	2	Wednesday 24 September 97	0	
Bearbrook Road (RR-28) at pedestrian path between Centre Park Drive and West Park Drive - south	5	14	5,760	132	61	1	Thursday 25 September 97	1	- includes children crossing on bicycles
Beechwood Avenue at Jolliet Avenue	3	17	12,326	62	1	3	Monday 26 May 97	0	
Fallowfield Road (RR-12) at Montana Way pedestrian path	9	10	14,151	26	2	0	Tuesday 27 May 97	0	
Fisher Avenue at Normandy Crescent - north intersection	7	12	11,946	31	10	2	Wednesday 7 May 97	0	
Kirkwood Avenue at Clare Street	1	39	9,938	110	1	8	Friday 23 May 97	0	
Kirkwood Avenue at Iona Street	2	20	9,938	98	16	1	Monday 26 May 97	0	

#### 1997 PEDESTRIAN SIGNAL PROGRAMME - PHASE 2

ANNEX B	
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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 - 1994-1996)	Comments
Maitland Avenue at Lenester Avenue	10	5	12,427	25	1	3	Friday 23 May 97	0	
McArthur Avenue at Cyr Street	4	15	12,500	176	8	5	Friday 23 May 97	3	
Meadowlands Drive (RR-51) at Perry Street	8	10	9,739	72	11	0	Wednesday 24 September 97	0	- includes children crossing on bicycles
Perth Street (RR-10) at Murray Street	11	2	8,275	21	0	4	Friday 23 May 97	0	

### 1997 TRAFFIC CONTROL SIGNAL PROGRAMME PHASE 2 <u>Priority Listing</u>

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-	100
	100
	100
Rd 25)	100
	98
Boulevard	95
	95
	95
	95
	93
	93
Drive	91
	86
	85
	82
	82
	80
Drive	<ul> <li>93</li> <li>93</li> <li>91</li> <li>86</li> <li>85</li> <li>82</li> <li>82</li> </ul>

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### 1997 TRAFFIC CONTROL SIGNAL PROGRAMME PHASE 2 <u>Priority Listing</u>

	Priority Listing	Percent
	Location	Warranted
(2)	Locations at which Further Review Is Proposed	
	Roger Stevens Drive (Reg Rd 6) and Rideau Valley Drive (Reg Rd 13) - west intersection	78
	Cyrville Road (Reg Rd 128) and Maxime Street	77
	Churchill Avenue and Clare Street	76
	Cyrville Road (Reg Rd 128) and Meadowbrook Drive	76
	Mitch Owens Road (Reg Rd 8) and Stagecoach Road (Reg Rd 25)	75
(3)	Locations at which No Further Review Is Proposed	
	Fallowfield Road (Reg Rd 12) and Larkin Drive	74
	Main Street (Reg Rd 5) and Hobin Street	73
	Iona Street and Kirkwood Avenue	70
	Innes Road (Reg Rd 30) and Page Road	67
	Roger Stevens Drive (Reg Rd 6) and Rideau Valley Drive (Reg Rd 13) - east intersection	65
	Cummings Avenue and Montreal Road	65
	Clare Street and Kirkwood Avenue	64
	Bell Street and Gladstone Avenue	64
	Baseline Road and Cordova Avenue	64
	Kelly Avenue and Pinecrest Road	61
	Bay Street and Gladstone Avenue	59

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### 1997 TRAFFIC CONTROL SIGNAL PROGRAMME PHASE 2 <u>Priority Listing</u>

	Location	Percent <u>Warranted</u>
(3)	Locations at which No Further Review Is Proposed	
	Robertson Road (Reg Rd 36) and Vanier Road	54
	St. Joseph Boulevard (Reg Rd 34) and Gabriel Street	50
	Ages Road and Hawthorne Road	49
	Orléans Boulevard (Reg Rd 56) and Oak Meadows Drive	47
	Orléans Boulevard (Reg Rd 56) and Boyer Road	45
	March Road (Reg Rd 49) and Klondike Road	26
	Langs Road and Montreal Road	40
	March Road (Reg Rd 49) and Maxwell Road	16
	St. Joseph Boulevard (Reg Rd 34) and Edgar Brault Street	11

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 Accidents Average per Year. (for 3 yrs. 1 Jan 94-31 Dec 96)	Day and Date of Count	Comments
Ages Road and Hawthorne Road	37	49	13,151	330	2	0.00	Monday 16 Jun 97	
Albion Road (RR-25) and Rideau Road	2	100	4,322	1,026	0	3.33	Thursday 23 May 96	- overhead flashing beacon - volume data from 1996
Baseline Road and Cordova Avenue	31	64	16,706	675	33	4.00	Wednesday 7 May 97	
Bay Street and Gladstone Avenue	33	59	6,578	208	216	2.00	Thursday 15 May 97	
Bell Street and Gladstone Avenue	30	64	7,250	654	153	2.33	Friday 16 May 97	
Blohm Drive and Hunt Club Road	8	95	7,713	991	0	0.67	Monday 21 Jul 97	
Carp Road (RR-5) and March Road (RR-49)	5	98	2,697	1,944	3	0.00	Friday 6 Jun 97	existing multi-way stop control
Churchill Avenue and Clare Street	20	76	4,366	509	188	1.33	Thursday 12 Jun 97	

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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 Accidents Average per Year. (for 3 yrs. 1 Jan 94-31 Dec 96)	Day and Date of Count	Comments
Churchill Avenue and Scott Street	7	95	4,102	2,870	403	0.00	Friday 23 May 97	- existing multi-way stop control
Clare Street and Kirkwood Avenue	29	64	6,929	673	118	1.67	Thursday 22 May 97	
Cummings Avenue and Montreal Road	28	65	13,541	856	49	1.33	Monday 21 Jul 97	
Cyrville Road (RR-128) and Maxime Street	19	77	5,211	814	3	0.00	Wednesday 14 May 97	
Cyrville Road (RR-128) and Meadowbrook Drive	21	76	5,709	1,491	26	0.33	Thursday 15 May 97	
Fallowfield Road (RR-12) and Larkin Drive	23	74	6,279	915	3	0.33	Friday 30 May 97	
Hunt Club Road and Paul Anka Drive	34	55	17,409	664	19	1.33	Wednesday 7 May 97	
Huntley Road (RR-5) and Flewellyn Road	1	100	3,533	1,853	2	1.33	Thursday 13 Jun 96	<ul> <li>existing multi-way stop control</li> <li>volume data from 1996</li> </ul>

# 1997 TRAFFIC CONTROL SIGNAL PROGRAMME - PHASE 2

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 Accidents Average per Year. (for 3 yrs. 1 Jan 94-31 Dec 96)	Day and Date of Count	Comments
Hwy 417 exit ramp and Lees Avenue	17	80	2,666	2,273	39	2.00	Wednesday 14 May 97	existing multi-way stop control
Innes Road (RR-30) and Page Road	26	67	8,895	906	21	4.00	Friday 11 July 97	
Innes Road (RR-30) and Prestwick Drive	16	82	8,319	877	7	1.00	Wednesday 14 May 97	
Iona Street and Kirkwood Avenue	25	70	6,650	519	82	0.67	Wednesday 21 May 97	
Jeanne d'Arc Boulevard (RR-34) and des Epinettes Boulevard	6	95	5,232	3,077	172	1.00	Friday 30 May 97	existing multi-way stop control
Jeanne d'Arc Boulevard (RR-55) and Hunters Run Drive	12	91	8,034	1,064	15	1.67	Thursday 5 June 97	
Kelly Street and Pinecrest Road	32	61	13,662	482	0	2.33	Wednesday 21 May 97	
Langs Road and Montreal Road	41	40	16,418	577	35	0.33	Tuesday 20 May 97	

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 Accidents Average per Year. (for 3 yrs. 1 Jan 94-31 Dec 96)	Day and Date of Count	Comments
Leitrim Road (RR-14) and Hawthorne Road	11	93	2.373	1,818	0	0.67	Wednesday 28 May 97	existing multi-way stop control
Lynda Lane and Smyth Road	9	95	9,852	871	111	1.33	Friday 30 May 97	
Main Street (RR-5) and Hobin Street	24	73	8,880	759	35	1.33	Tuesday 27 May 97	
March Road (RR-38) and Klondike Road	40	26	8,196	210	8	0.00	Friday 23 May 97	
March Road (RR-49) and Maxwell Road	42	16	7,765	105	0	0.00	Thursday 8 May 97	
Mitch Owens Drive (RR-8) and Albion Road (RR-25)	4	100	5,122	1,838	10	0	Friday 13 June 97	
Mitch Owens Drive (RR-8) and Stagecoach Road (RR-25)	22	75	5,181	1,631	0	0.33	Monday 9 June 97	
Orléans Boulevard (RR-56) and Boyer Road	39	45	5,948	917	42	1.33	Wednesday 14 May 97	

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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 Accidents Average per Year. (for 3 yrs. 1 Jan 94-31 Dec 96)	Day and Date of Count	Comments
Orléans Boulevard (RR-56) and Forest Valley Drive	14	85	6,865	1,446	63	3.00	Tuesday 20 May 97	
Raymond Street and Rochester Street	10	93	3,993	2,607	94	3.33	Thursday 12 Jun 97	
Robertson Road (RR-36) and Vanier Road	35	54	17,863	471	76	1.33	Thursday 5 June 97	
Roger Stevens Drive (RR-6) and Rideau Valley Drive (RR-13) - east intersection	27	65	2,504	941	0	0.33	Friday 30 May 97	
Roger Stevens Drive (RR-6) and Rideau Valley Drive (RR-13) - west intersection	18	78	2,193	911	1	0.33	Tuesday 19 Aug 97	existing multi-way stop control
St. Joseph Boulevard (RR-34) and Edgar Brault Street	43	11	11,837	121	11	0.00	Wednesday 21 May 97	
St. Joseph Boulevard (RR-34) and Gabriel Street	36	50	13,564	720	13	0.67	Friday 9 May 97	

# 1997 TRAFFIC CONTROL SIGNAL PROGRAMME - PHASE 2

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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 Accidents Average per Year. (for 3 yrs. 1 Jan 94-31 Dec 96)	Day and Date of Count	Comments
Scott Street and Western Street	15	82	8,103	813	96	1.33	Friday 30 May 97	
Trim Road (RR-57) and Watters Road	3	100	3,641	1,665	5	2.33	Thursday 15 May 97	
Woodroffe Avenue (RR-15) and Longfields Drive	13	86	7,324	591	0	1.00	Wednesday 28 May 97	















