



10 November 2022

File No.: 21-1115

**The Corporation of the Town of Kingsville
2021 Division Road North
Kingsville, ON N9Y 2Y9**

**Attention: Tim Del Greco, P. Eng.
Manager of Engineering**

Re: Road 5 East Speed Study (Between CR 31 and Longlee Lane)

Mr. Del Greco:

Based on resident complaints of excessive speeding along Road 5 East, from County Road 31 to Longlee Lane (as illustrated below), the Town of Kingsville requested that our office conduct a technical evaluation of collected volume and speed data along this 80 km/h stretch of roadway.



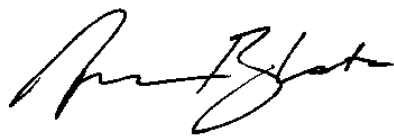
An observed maximum speed of 142 km/h and corresponding 85th percentile speed of 85 km/h validates the residents' concerns; speeding on this 1.2 km stretch of Road 5 East may be excessive.

Accordingly, the TAC Automated Speed Limit Guidelines spreadsheet, referenced in Appendix B, was prepared to technically evaluate the conditions of the roadway in relation to the recommended speed limit. Since the higher, medium, and lower ratings for Items A through D are subjective items, a selection explanation is also provided in Appendix B to clarify the ratings chosen for these items. When all the various roadway and traffic characteristics factors are inputted into the evaluation sheet, the results indicate that the roadway should be posted at 60 km/h.

As a result, it is the engineers' opinion that the speed limit along Road 5 East, between County Road 31 and Longlee Lane, should be posted at 60 km/h; the Town's Traffic Bylaw should be amended accordingly.

All of which is respectfully submitted,

RC Spencer Associates Inc.



Aaron D. Blata, M.Eng., P.Eng., PTOE
Professional Traffic Operations Engineer
Associate / Leamington Office Manager



Richard C. Spencer, M.A.Sc., P.Eng., PE
Fellow Member, ITE
President / Windsor Office Manager



Appendix A

TRAFFIC DATA COLLECTION

For Project:	Road 5 East					
Project Notes:	Olinda to Albuna					
Location/Name:	Merged					
Report Generated:	2022-08-16	10:32				
Speed Intervals	1 km/h					
Time Intervals	Instant					
Traffic Report From	2022-07-11	14:00:00	through	2022-07-15	10:59:59	
85th Percentile Speed	85 km/h					
85th Percentile Vehicles	2411					
Max Speed	142 km/h	on	2022-07-15	05:58:56		
Total Vehicles	2836					
AADT:	731					

Volumes - weekly counts

Time	5 Day	7 Day
Average Daily	567	567
AM Peak	09:00 56	56
PM Peak	05:00 64	64

Speed

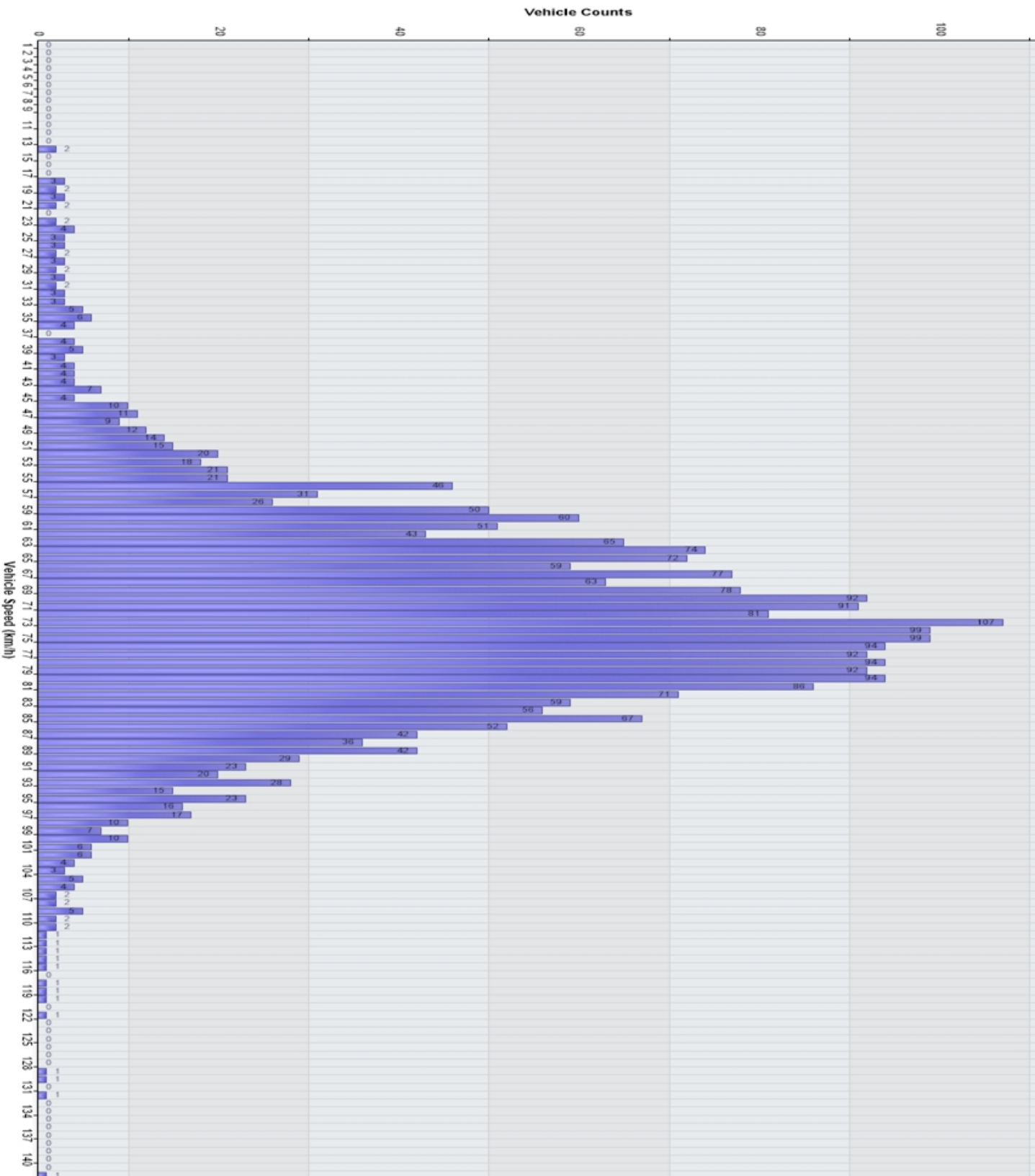
Speed Limit:	80				
85th Percentile Speed:	85				
50th Percentile Speed:	74				
10 km/h Pace Interval:	70.0 km/h	to		80.0 km/h	
Average Speed:	72.79				

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Count over limit	86	195	179	238	65	N/A	N/A
% over limit	23.6	26.9	24.9	29.5	29.7	N/A	N/A
Avg Speeder	87.7	88.5	88.7	88.6	90.2	N/A	N/A

Class Counts

	Number	%
VEH_SM	45	1.6
VEH_MED	2640	93.1
VEH_LG	151	5.3
[VEH_SM=motorcycle,	VEH_MED = sedan,	VEH_LG = truck]

Road 5 East
Orinda to Alhambra
Volume By Speed Histogram



Appendix B

TAC AUTOMATED SPEED LIMIT GUIDELINES



Automated Speed Limit Guidelines

FORM A - Automated Speed Limit Guidelines Spreadsheet

Version:
10-Apr-09

Name of Corridor:	Road 5 E			
Segment Evaluated:	Longlee Lane	to	County Road 31	
Geographic Region:	Kingsville			
Road Agency:	Kingsville			
Road Classification:	Collector	Length of Corridor:	1,200	m
Urban / Rural:	Rural	Design Speed: (Required for Freeway, Expressway, Highway)	90	km/h
Divided / Undivided:	Undivided	Current Posted Speed: (For information only)	80	km/h
Major / Minor:	Minor	Prevailing Speed: (85th Percentile - for information only)	85	km/h
# Through Lanes Per Direction:	1 lane	Policy: (Maximum Posted Speed)	80	km/h

		RISK	Score
A1	GEOMETRY (Horizontal)	Lower	2
A2	GEOMETRY (Vertical)	Lower	2
A3	AVERAGE LANE WIDTH	Higher	3
B	ROADSIDE HAZARDS	Lower	3
C1	PEDESTRIAN EXPOSURE	Lower	1
C2	CYCLIST EXPOSURE	Lower	1
D	PAVEMENT SURFACE	Medium	6
E1	NUMBER OF INTERSECTIONS WITH PUBLIC ROADS	Number of Occurrences	4
	STOP controlled intersection	1	
	Signalized intersection	0	
	Roundabout or traffic circle	0	
	Crosswalk	0	
	Active, at-grade railroad crossing	0	
	Sidestreet STOP-controlled or lane	1	
E2	NUMBER OF INTERSECTIONS WITH PRIVATE ACCESS DRIVEWAYS	Number of Occurrences	13
	Left turn movements permitted	32	
	Right-in / Right-out only	0	
E3	NUMBER OF INTERCHANGES	Number of Occurrences	0
	Number of interchanges along corridor	0	
F	ON-STREET PARKING	N/A	0

Total Risk Score:

35

Recommended Posted
Speed Limit (km/h):

As determined by road characteristics

60

As determined by policy

80

The recommended posted speed limit may be checked against the prevailing speeds of the roadway and the road's safety performance.

Comments:

Automated Speed Limit Guidelines Spreadsheet
Selection Explanations

A1 (Geometry – Horizontal)

Lower risk – less than 3 curves per kilometre.

A2 (Geometry – Vertical)

Lower risk – generally moderate grades or flat.

A3 (Average Lane Width)

Higher risk – Available width is narrow compared to typical roadways with the same road classification. (Average lane width = available paved surface width per direction, including shoulders and bicycle lanes, divided by the number of auto through lanes.) The average width is 6m, giving approx. 3m wide lanes.

B (Roadside Hazards)

Lower risk – Less than 2 hazards per kilometre. (“Hazards” refer to any non-breakaway fixed object or continuous non-recoverable risk located within the clear zone as defined by the TAC Geometric Design Guide for Canadian Roads Table 3.1.3.1. Examples of “continuous” hazards: non-recoverable side slopes, rock face, water hazards, row of unprotected trees or utility poles.) There are non-recoverable ditches along a 200m portion of the road on the south side, also some close trees on both sides and hydro poles.

C1 (Pedestrian Exposure)

Lower risk – Roadway has negligible pedestrian demand.

C2 (Cyclist Exposure)

Lower risk – Roadway has negligible cyclist demand.

D (Pavement Surface)

Medium risk – Fair or Rough (significant sections with potholes, rutting, large cracks, etc.)