



New School Openings
Willow River Public School
670 Thomas Slee Drive

Version: 1.0
Revision Date: May 28, 2025

Version	Date	Author	Comment / Change
1.0	May 28, 2025	SH	Final

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School Profile

Willow River Public School (the School) is a newly constructed building located at 670 Thomas Slee Drive. The School has frontage on Thomas Slee Drive to the south, Ian Ormston Drive to the east, Monarch Woods Drive to the north. The School is operated by the Waterloo Region District School Board (WRDSB).

A one-way westbound school bus drop-off is proposed on the south side of the School with access to Thomas Slee Drive. Access to and from the parking area and a lay-by area on the east side of the site available by a 2-way access to Thomas Slee Drive and a one-way outbound access to Ian Ormston Drive. Multiple pedestrian accesses connect the School to Thomas Slee Drive, Ian Ormston Drive, and Monarch Woods Drive.

Site Plan Status

The Site Plan has been approved and is attached in **Appendix A**.

Road Status and Characteristics

All roads abutting the site have not been assumed by the City of Kitchener.

Table 1 summarizes the characteristics of the adjacent roadways within 50 metres of the School property. All nearby roads have sidewalks on both sides of the road.

Table 1: Adjacent Roadway Characteristics

Road	AADT (VPD) ¹	Intersection Control ²	Posted Speed	Collision History ³
Thomas Slee Dr	1600	TWSC on Ridgemount St TWSC on Ian Ormston Dr TWSC on Blair Creek Dr TWSC on Monarch Woods Dr	40 km/h	1
Ian Ormston Dr	N/A	TWSC on Monarch Woods Dr (easterly North/South leg) TWSC at Monarch Woods Dr (westerly North/South leg)	40 km/h (assumed)	0
Monarch Woods Dr	N/A	TWSC on Mossgrove Dr	40 km/h (assumed)	0
Blair Creek Dr	2200	-	40 km/h (assumed)	2
Ridgemount St	N/A	TWSC at Autumn Ridge Trail	40 km/h (assumed)	0

Note 1: AADT = Average Annual Daily Traffic, VPD = Vehicles Per Day

Note 2: TS = Traffic Signal, AWSC = All-Way Stop Control, TWSC = Two-Way Stop Control

Note 3: Collision Data Gathered Within 3 Years

Under existing conditions, no signage prohibits parking or stopping along the School's frontage to abutting roadways.

Transportation Safety Features and Signage

The approved Site Plan, dated 23.12.05, was reviewed and is included in

Appendix A. For purposes of this study, Thomas Slee Drive is assumed to be aligned east/west.

The School Bus Loading Area has a one-way configuration and is located on the southerly side of the building with access to Thomas Slee Drive. The inbound access is located opposite Blair Creek Drive and the outbound access is located approximately 85 metres to the west. As the School Bus Loading Area is approximately 60 metres long and assuming a school bus is approximately 12 metres long, approximately 5 buses in a single line, or 10 buses if parked in a second line, can be accommodated. No parking spaces or drop-off areas for passenger vehicles are located within this area.

The parking area for passenger vehicles is located on the east side of the building. There is a 2-way access to Thomas Slee Drive and an outbound-only access to Ian Ormston Drive opposite Ian Ormston Park. While vehicles can access Thomas Slee Drive while exiting the parking area, the lay-by area only outlets to Ian Ormston Drive.

Speed Limit

The existing speed limit on nearby roads is posted, or assumed, as 40 km/h.

To improve pedestrian safety, it is recommended to lower the speed limit within 150 metres to the east and west from the School's frontage on Thomas Slee Drive to 30 km/h as noted in Section XIV.2 of Traffic By-law 2019-113. "School Zone" tab signs should be installed, when feasible, to identify the extents of the School Zone.

New signage would be required at all locations where changes to the existing speed limit are proposed and are the responsibility of the developer of the surrounding subdivision. City staff will provide direction to the developer following City Council approval.

Signage - School Bus Loading Area

The School Bus Loading Area has "Do Not Enter – Buses Excepted" signage at the inbound entrance to Thomas Slee Drive and "Do Not Enter" signage at the outbound access. The loading area has signage indicating "No Stopping – Fire Route".

It is recommended to install one-way arrows (Rb-21) within the loading area.

Appendix B illustrates the recommended signs and their approximate locations.

Signage - Frontage to Adjacent Roadways

The Site Plan does not identify signage on adjacent roadways to restrict vehicle stopping or parking along the site's frontage.

As general provisions in Traffic By-law 2019-113, Section V.8.a.iii permits Rb-55 (No Stopping) signs on the roads abutting a school, and Section V.8.a.v permits Rb-56 (No Stopping with Time Restrictions) signs on the opposite side of the roadway abutting the School's property.

It is recommended to add Rb-55 (No Stopping) signs along the School's frontage on Thomas Slee Drive and Rb-56 (No Stopping with Time Restrictions) signs opposite the School's frontage on Thomas Slee Drive and Ian Ormston Drive.

Additionally, it is recommended to add Rb-56 (No Stopping with Time Restrictions) signs on the west side of Ian Ormston Drive south of the proposed access.

All Rb-55 and Rb-56 signs should be installed in accordance with Ontario Traffic Manual (OTM) Book 5, which identifies a maximum spacing of 50 metres. All Rb-56 signs should note the time restriction as 8:00 AM to 4:30 PM, as noted in Section V.8.b.iii of Traffic By-law 2019-113.

The new signage would be the responsibility of the developer of the surrounding subdivision.

All sign changes that are within a City of Kitchener right-of-way will require an update to "Schedule 4 – No Stopping" in the Uniform Traffic Bylaw, via a staff report to City Council.

Appendix B illustrates the recommended signs and their approximate locations.

Signage - Internal Parking Area

North of the internal parking area, the Site Plan includes "One-Way" and "No Stopping" signage to guide motorists to the Ian Ormston Drive outbound access. "No Parking" signs are also included in the lay-by area opposite the basketball court.

To further reinforce the outbound-only nature of the Ian Ormston Drive access, it is recommended to add additional one-way arrows (Rb-21) opposite the lay-by area and on/near the 90 degree bend to the north of the lay-by area. This will discourage vehicles from performing U-turns from the lay-by area, and to alert drivers who may accidentally enter through the Ian Ormston Drive entrance.

Appendix B illustrates the recommended signs and their approximate locations.

Walkshed and Boundary Analysis

Figure 1 illustrates the estimated number of students in each walkshed for the School as provided by WRDSB staff on February 3, 2025. The WRDSB noted that an increase in the number of students is expected after the School's first year of operation.

Figure 1: Walkshed



Crossing Guard Studies

The Ontario Traffic Council (OTC) provides guidance in the School Crossing Guard Guide (2023) (OTC SCGG) on when crossing guards are warranted at a location. Based on the crossing locations, the Gap Study warrant methodology was used as noted in the OTC SCGG. As noted in the OTC SCGG, a minimum threshold of 40 crossing students within the 25 minutes before the bell time and 5 minutes after the bell time, and vice versa for the afternoon bell times, is needed to meet the warrant.

To estimate the potential need for crossing guards within each of the walksheds in **Figure 1**, City staff estimated the volumes of students crossing at intersections or potential mid-block crossing locations.

Table 2 summarizes the results of the Gap Study using the estimated potential range of students who may use the noted road crossings. For the warrant to be met, there needs to be at least 40 students crossing and fewer than 4 gaps in more than 50% of the 5-minute intervals. For purposes of this study, Thomas Slee Drive abutting the School's frontage is oriented east/west.

Table 2: Gap Study Summary

Intersection	Intersection Leg	Estimated Number of Students Crossing	Range of Measured Gaps Exceeding Calculated Safe Gap Time in each 5 Min Interval	Warrant Met?
Thomas Slee Rd and Blair Creek Dr intersection (Potential Uncontrolled Midblock Crossing)	East	50 - 60	AM: 14 – 18 PM: 14 – 21	No

Based on the Gap Study, no crossing guards are warranted in the walkshed under existing conditions. As shown in **Table 2**, at least 14 gaps were available in each 5-minute interval at all locations, while fewer than 4 are needed for the warrant. It is noted that the potential crossing locations and student volumes were estimated based on data provided by the WRDSB.

Due to the large number of potential students crossing at the noted locations and as traffic volumes near the School are expected to increase upon its build-out, it is recommended that the noted intersections are monitored during the first and third years of operation to determine the potential future need for crossing guards.

Appendix C includes the Gap Study summaries for each assessed location.

Should the noted crossing locations warrant a crossing guard in the future, it is recommended that the general provisions in Traffic By-law 2019-113, Section V.8 are reviewed as additional signage may be considered near designated school crossings.

Active Transportation Improvements

The City's Cycling and Trails Master Plan identified a new trail connecting Forest Edge Trail and Ian Ormston Drive. However, detailed study during subdivision planning determined a trail was not feasible through the woodlot and will not be built by the developer or Parks staff. Future cycling facilities on Robert Ferrie Drive are identified in the CTMP as a long-term improvement (20+ years). When pursued, a connection to the School would be prioritized.

It is recommended that the WRDSB considers widening the walkway to at least 2.0 metres in width on the south side of the outbound access to Ian Ormston Drive between Ian Ormston Drive and the internal crosswalk opposite the basketball court. Based on estimates from City staff, the walkway may become congested as 40 to 85 students may cross at the mid-block crossing between Ian Ormston Park and the outbound access and use the noted walkway.

Bylaw Enforcement

The City's bylaw enforcement team will add St. Patrick to its school enforcement routes. No Parking and No Stopping areas in the School Zone have:

- A zero-tolerance ticketing policy
- An increased ticket cost

Communication Plan

To reduce the concentration of vehicular traffic near the School, Student Transportation Services of Waterloo Region (STSWR) will identify preferred "Drive to 5" locations, to identify alternative locations within a 5-minute walk to the school that students can be dropped off by passenger vehicles.

STSWR will provide pamphlets and messaging to schools in August and advise schools to share them at startup, and throughout the school year, that note the No Parking and No Stopping areas in the School Zone have:

- A zero-tolerance ticketing policy where no warnings may be provided to offending drivers
- An increased ticket cost

City staff will include messaging related to the new school in its "back to school" media release in early September.

Monitoring and Long-Term Studies

It is recommended that in the first year of School operation, the City monitors the interaction between vehicles and students near the School and monitors the volumes of students crossing to determine if crossing guard(s) are warranted. The monitoring should be repeated in the third or fourth year of School operation to help drivers and students develop safe, long-term habits.

Appendix A: Site Plan

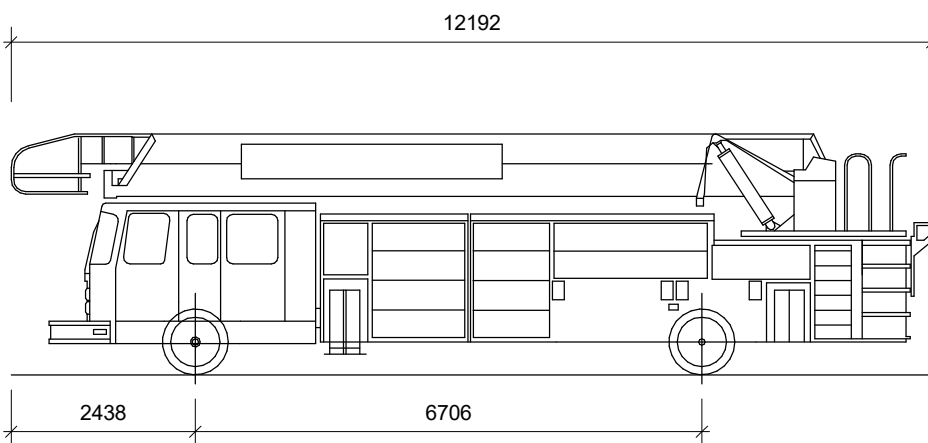
Appendix B: Recommended Signs and Approximate Locations

Appendix C: Gap Study Summary

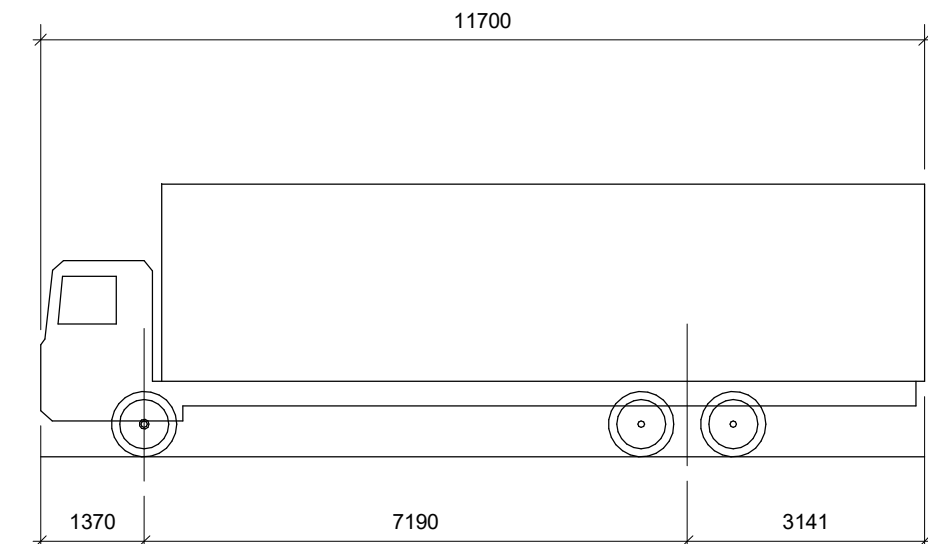


SITE SIGNAGE

- ACCESSIBLE PARKING PERMIT - RB-93
- NO PARKING FIRE ROUTE DOUBLE ARROW - FRR-1
- ELECTRIC VEHICLE PARKING - EV-1
- STOP SIGN - RA-1
- CROSSWALK SIGN - CW-1
- DO NOT ENTER SIGN - NE-1
- DO NOT ENTER BUS EXCEPTED SIGN - NE-2
- NO STOPPING FIRE ROUTE DOUBLE ARROW - FRR-2
- ONE-WAY - OW-1



PUMPER FIRE TRUCK
Overall Length 12.192m
Overall Width 2.489m
Overall Body Height 3.188m
Min Body Ground Clearance 0.272m
Track Width 2.489m
Lock-to-lock time 5.00s
Max Steering Angle 45.00°
2 Pumper Fire Truck
SPA102 Scale: 1 : 100



MOLOK GARBAGE TRUCK
Overall Length 11.700m
Overall Width 2.470m
Overall Body Height 0.432m
Min Body Ground Clearance 0.432m
Track Width 2.470m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 9.000m

3 Molok Truck
SPA102 Scale: 1 : 100



No.	ISSUANCE	DATE
1	ISSUED FOR SITE PLAN APPROVAL	2022.10.19
2	RE-ISSUED FOR SITE PLAN APPROVAL	2023.02.07
3	RE-ISSUED FOR SITE PLAN APPROVAL	2023.08.10
4	RE-ISSUED FOR SITE PLAN APPROVAL	2023.12.01

DISCLAIMER:
NOT FOR CONSTRUCTION



CLIENT
WATERLOO REGION DISTRICT SCHOOL BOARD
51 ARDELT AVE, KITCHENER, ON N2C 2R5
PROJECT
SOUTH KITCHENER - NEW SCHOOL
670 THOMAS SLEE DRIVE, KITCHENER, ON

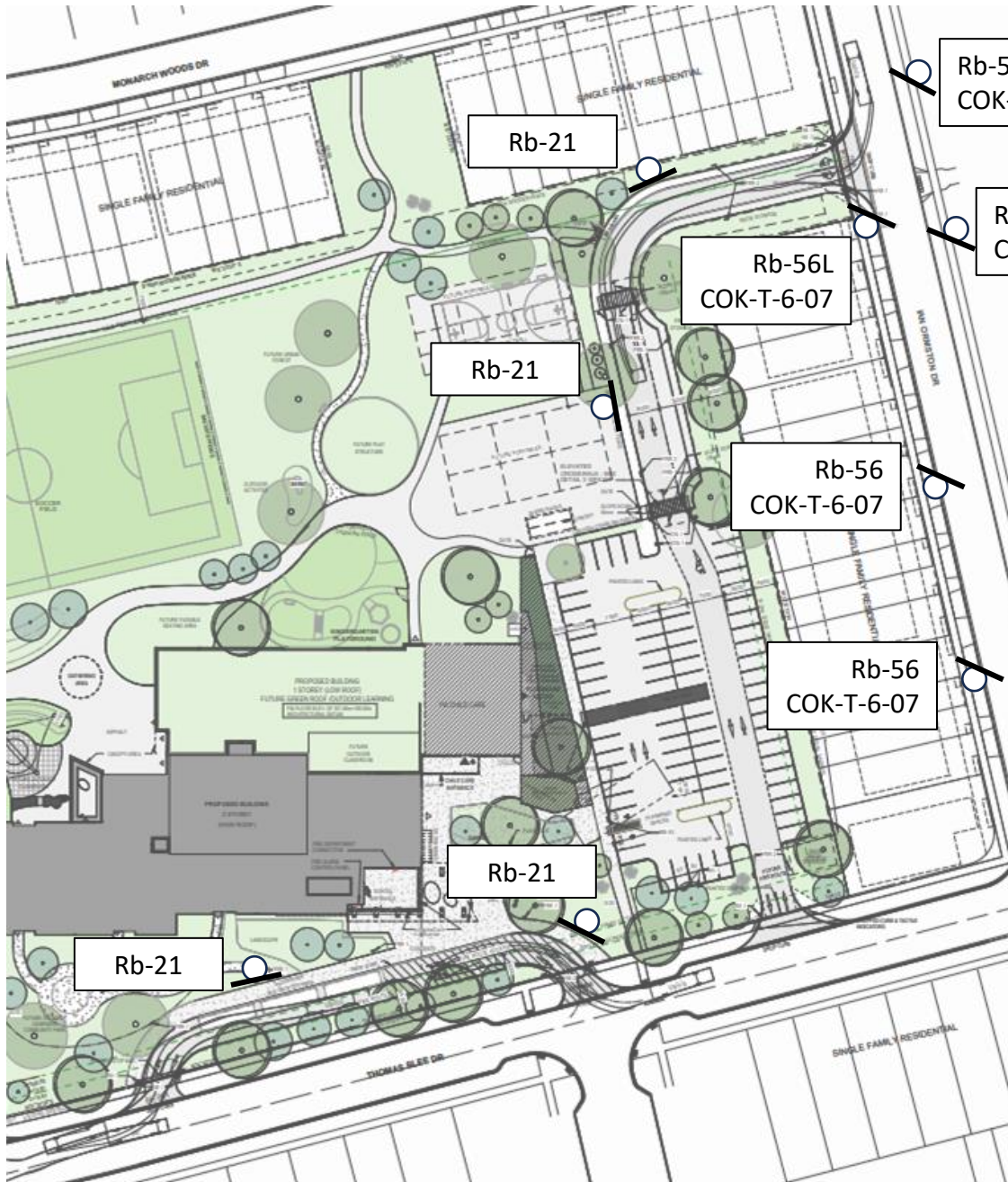
TITLE
TRUCK TURNING & SIGNAGE PLAN





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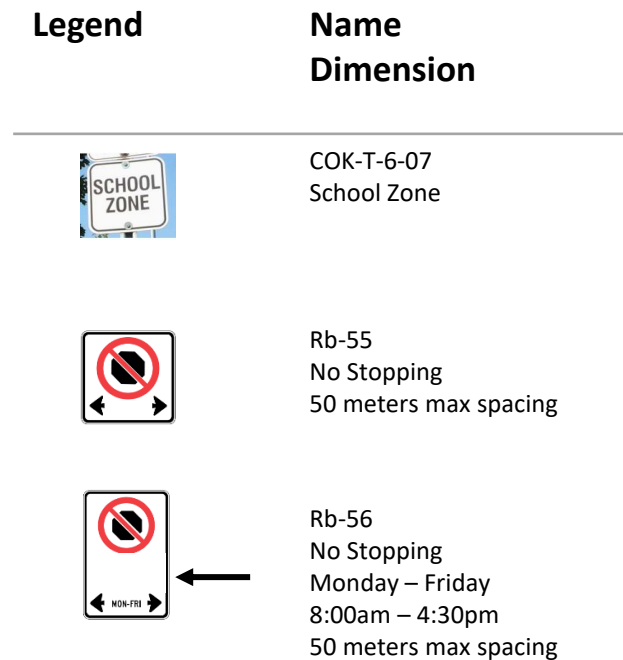


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SCALE: As indicated	SHEET NO: SPA102
DATE: 02/07/2023	
PROJECT NO: 2022-0036-10	
DRAWN BY: SY/MF	
CHECKED BY: JK	



Legend	Name Dimension
	COK-T-6-07 School Zone
	Rb-21 One Way
	Rb-55 No Stopping 50 meters max spacing
	Rb-56 No Stopping Monday – Friday 8:00am – 4:30pm 50 meters max spacing



Crossing Guard Gap Study

 = User Input

Study Information	
School:	Willow River PS
Date:	2025-04-01
Weather:	Sunny
Bell Time:	9:10 AM*
	3:30 PM*
Leg:	East
Location:	Main Road: Thomas Slee Dr
	Minor Road: Blair Creek Dr
Study by:	SH

* Assumed based on Groh PS, as school isn't built

Calculating Safe Gap Time	
Safe Gap Time (G) = Perception & Reaction Time (P) + Crossing Time + Group Factor Time	
$G = P + (W / S) + T (N - 1)$	
P = Perception time	4 secs (assumed*)
W = Width of Roadway	7 metres
S = Avg walking speed	1 m/s (assumed*)
T = Group factor (assume 2)	2 (assumed*)
N = Predominant group size	2 (Assumed as school is proposed, this is conservative)
(Avg # of students crossing in increments of 5 (e.g if 3 cross, N=1, if 8 cross, N=2))	
Safe Gap Time (seconds)	13

* Per OTC

Morning Study			
Time	# of students	Gaps over Safe Gap Time*	Comments
8:45 - 8:50	0	14	
8:50 - 8:55	0	16	
8:55 - 9:00	0	18	
9:00 - 9:05	0	0	
9:05 - 9:10	0	0	
9:10 - 9:15	0	0	

Afternoon Study			
Time	# of students	Gaps over Safe Gap Time*	Comments
3:25 - 3:30	0	0	
3:30 - 3:35	0	0	
3:35 - 3:40	0	0	
3:40 - 3:45	0	15	
3:45 - 3:50	0	14	
3:50 - 3:55	0	21	

*Gaps that are longer than the calculated Safe Gap Time need to be expressed as increments of the Safe Gap Time. e.g. if the Safe Gap Time was calculated to be 10 seconds, and a long gap of 34 seconds was observed, then there would be three gaps

Gap Study Summary					
Metric	Total Students Crossing	# of Gaps in Measured Period	# of 5 Min Intervals with <4 Safe Gaps	Total # of 5 Min Intervals	% of Intervals with <4 Safe Gaps
AM	0	48	0	3	0%
PM	0	50	0	3	0%
Above 40 Students?			No		
<4 Safe Gaps in >50% of Intervals			No		
Warrant Met?			No		