EXTENDED SEMI-TRAILER CONFIGURATION TRIAL OPERATIONS

SPECIAL PERMIT PROGRAM CONDITIONS

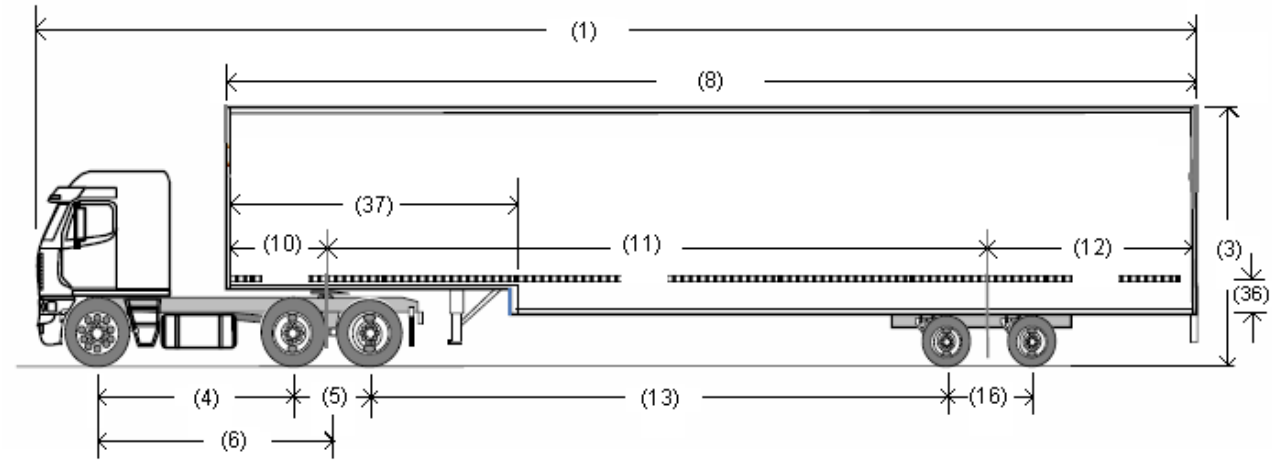
Overview	- Extended semi-trailers, up to 18.44 m (60 ft 6 in), provide approximately 14% more volume than the existing conventional 16.20 m (53 ft) van semi-trailer. The 18.44 m drop-deck design provides approximately 28% more volume when compared to conventional 16.20 m van semi-trailers. Carriers of low density cargo would improve productivity, providing economic benefits to Ontario by reducing the number of trips required to move lighter bulkier cargo. There is no additional impact on the road infrastructure as weight allowances are not modified from the current limits. - Dynamic performance of the extended drop deck semi-trailer consistent with Safe, Productive, Infrastructure-Friendly (SPIF) performance standards. MTO is open to allowing a limited trial pilot operation of the proposed combination to confirm that it is safe to operate on Ontario's roadways. - The limited trial operation will be allowed under Special Vehicle Configuration Permits (SVP), subject to the conditions outlined in this document. - MTO is open to allowing a limited number of carriers, to a maximum of 5 carriers, to operate the extended semi-trailers as part of the trial operation, based on MTO discretion. The trial will be limited to those shipping retail goods, destined for the retail industry. - After a period of 18 months after the first carrier starts operation, MTO will evaluate the performance of the extended semi-trailers, compare their operation to the current 16.20 m (53 ft) trailers in use, and their potential impact on the trucking industry. Evaluation parameters are outlined in detail below. - Based on the results of the evaluation, MTO will determine whether to and how to proceed with a further measured roll out of extended semi-trailer operations. - The following conditions apply to trial operations of the extended semi-trailer. As part of the evaluation, MTO will consider what conditions will be required should operations expand.
General conditions	- Carriers and, where applicable, shippers must enter into a Memorandum of Understanding (MoU) with MTO signifying that they accept responsibilities as outlined in this document. - Permits will be issued to the carrier and each carrier is limited to operate up to 4 trailers under SVP during the trial operation testing the extended semi-trailer. - The permit (original or a copy) must accompany the trailer and be produced on demand to a police officer or enforcement officer appointed to carry out the provisions of the Highway Traffic Act. - The permit cannot be combined with any other permit for width, height, length, or weight. - Carriers must identify one or more personnel as a Primary Contact for the pilot operation and notify MTO of any changes immediately. Contact information and updates will include name, title, address, telephone, cell and email address.
Carrier qualifications	- Carriers with 'Conditional' or 'Unsatisfactory' Carrier Safety Ratings may not qualify for permits. Carriers whose rating drops to "Conditional" or "Unsatisfactory" must immediately cease operations. - Carrier will maintain a minimum $5 million public liability insurance coverage. - Carrier has at least 5 years of prior trucking experience. - Carriers may be required to provide documentation with the permit application to support their qualifications.
Driver qualifications	- Drivers must have a valid Class A driver's licence with Z (air brake) endorsement, or equivalent from another jurisdiction. - The Carrier must provide appropriate orientation to drivers on the operation of the extended semi-trailer. - As part of the monthly reporting on trial operations, the record of each trip will include the names of the driver.

	- Driver must have minimum of 5 years provable tractor-trailer driving experience
Areas of operation	- Carriers must inform MTO in advance of the origin/destination locations at which they intend to operate the extended semi-trailers. - The extended semi-trailers may only be operated at the locations identified by the carrier 1 week in advance of operations.
Special equipment requirements	- "Wide Right Turns" sign, with a minimum size of 800 cm^2, mounted between 1.2 m and 2.0 m above the road surface at the rear of the trailer. - The tractor and trailer must be equipped with a functioning anti-lock braking system (ABS) compliant with Canadian Motor Vehicle Safety Standard 121. - The tractor must be equipped with a functioning electronic stability control (ESC) system that, as a minimum, monitors steering angle, yaw and lateral acceleration and selectively applies the tractor and trailer brakes when necessary to maintain vehicle control.
Speed restriction	- Operators will be subject to strict speed enforcement by police. Travel under the permit must be at safe operating speeds, ensuring posted speed limits are adhered to at all times.
Notification of collisions / incidents / infractions	- The carrier must provide email notification to MTO immediately following any reportable collision. Email addresses are provided to participants. - Within 10 business days of any reportable collision (as specified in s199 of the Highway Traffic Act), the carrier must provide a copy of the accident report as well as the carrier's written explanation of the collision circumstances. Email, fax and mail addresses are provided to participants. - Within 10 business days, the carrier must provide notification and a description of any non-reportable incident that disrupts traffic or damages property. Email and fax addresses are provided to participants. - The carrier agrees that any information provided may be shared with police. - Police and enforcement personnel are requested to notify MTO of any participants' infractions.
Revocation of permits	- MTO reserves the right to suspend one or more of the permits, revoke permit privileges, or cancel the trial operation at any time, without advanced notice. - Permits may be revoked or suspended for breach of any condition including non-compliance with the agreed upon MoU or for non-compliance with the Highway Traffic Act. - Permits automatically become invalid if a permit holder's Carrier Safety Record falls to 'Conditional' or 'Unsatisfactory'. - MTO reserves the right to withdraw approval or modify conditions related to the permits without advance notice.

Evaluation process	- Carriers and/or shippers agree to maintain a record of each trip on an MTO-supplied Excel spreadsheet. Each month's data are to be submitted to MTO electronically within 10 business days of the month's end. MTO will treat all data from individual carriers as confidential, although aggregate results may be reported.
	- Recorded trip information will include date and time of the vehicle leaving the facility, origin, destination, route and kilometres travelled.
	- MTO will also track, monitor and evaluate any comments, issues and/or concerns raised by the public, municipalities, media, other modes, shippers, etc.
	- MTO will evaluate the results of the trial program in relation to road safety, acceptance from other road users and municipalities as well as general fitness to the road of the extended semi-trailer.
	- The evaluation will also consider the potential impact of the extended semi-trailer on Ontario's trucking industry including market and operational issues related to the new technology. The evaluation will include, but would not be limited by the following parameters:
	  - Analysis of collisions, including a comparison with other tractor semi-trailers using the same routes used by the extended semi-trailer during the trial operations.
	  - Detailed analysis of the type and characteristics of the collisions involving the extended semi-

	trailers. - Analysis of the comments/reactions received from other road users, the general public and municipalities. - Analysis of the potential reduction in truck trips, fuel savings and environmental impact. - Analysis of the potential impact of the extended semi-trailer to the trucking industry, in general, and to particular market segments of the industry, including competitive issues. - Impact and easiness of using the current loading/unloading facilities at shippers' facilities. - MTO will consult with participating carriers and other industry stakeholders in undertaking the evaluation. - Based on the results of the evaluation, MTO will determine whether to and how to proceed with a further measured roll out of extended semi-trailer operations, which could include an increase in number of permits and/or number of carriers.

EXTENDED SEMI-TRAILER CONFIGURATION — TRACTOR FIXED AXLE SEMI-TRAILER



Configuration Description

The extended semi-trailer configuration is composed of a cabover or short nose tractor that may include a drome box and a single drop deck extended semi-trailer. The front axle of the tractor is a single axle with single tires. The drive axle of the tractor is a tandem axle. The semi-trailer has one axle unit that is tandem axle.

The original compliance label or the manufacturer's identification plate on the tractor and trailer must identify the company authorized under the *Motor Vehicle Safety Act* (Canada) to apply a national safety mark, the foreign manufacturer registered under that Act or the authorized dealer of either of them, that manufactured the tractor or trailer, and must indicate the gross vehicle and axle weight ratings.

DIMENSIONAL LIMIT CHART (EXTENDED SEMI-TRAILER)

	Ref	Feature	Dimensional Limit
Overall	(1)	Overall Length	Max. 23.0m
	(2)	Width	Max. 2.6m
	(3)	Height	Max. 4.15m
Tractor	(4)	Inter-axle Spacing	Min. 3.0m
	(5)	Tandem Axle Spread	1.2 to 1.8m
	(6)	Wheelbase	5.0m to 5.5m
Semi-Trailer	(8)	Length	Max. 18.45m
	(36)	Drop deck height	0.35m to 0.45m
	(37)	Length front (upper) deck	3.5m to 4.0m
	(10)	Swing Radius	Max. 2.0m
	(11)	Wheelbase	6.25m to 12.5m
	(12)	Effective Rear Overhang	Max. 35% of wheelbase
	(13)	Inter-vehicle-unit Distance	Min. 5.0m
	(16)	Tandem Spread	1.2 to 1.85m
	(19)	Track Width – trailer with single tires – trailer with dual tires	 2.45 to 2.6m 2.5 to 2.6m

WEIGHT LIMIT CHART (EXTENDED SEMI-TRAILER)

Feature	Weight Limit
Front Axle Maximum: (lowest of a, b and c)	
a) by manufacturer's axle rating or default	i. GAWR (if verified), or ii. If GAWR not verified, the lower of: 1. 5,000 kg, and 2. the sum of the maximum tire load ratings
b) by tire width	11 kg × combined tire widths in mm
c) by axle unit description	Single Axle 7,700 kg
Other Axle Maximums: (lowest of a, b and c)	
a) by manufacturer's axle rating or default	i. GAWR (if verified), or ii. If GAWR not verified, the sum of the maximum tire load ratings
b) by tire width	10 kg × combined tire widths in mm
c) by axle unit description	Other Tractor Axles and Trailer Axles: Single Axle (Single Tires) 9,000 kg Single Axle (Dual Tires) 10,000 kg Tandem Axle by axle spread: – 1.2 < 1.8m 18,000 kg – 1.8 to 1.85m (Single Tires) 18,000 kg – 1.8 to 1.85m (Dual Tires) 19,100 kg
Allowable Gross Vehicle Weight: (lower of i and ii)	i. actual weight on the front axle plus other axle maximums