

Ministry of Transportation

**Task Force on Vehicle  
Weights and Dimensions  
(VWD) Policy**



December 2023

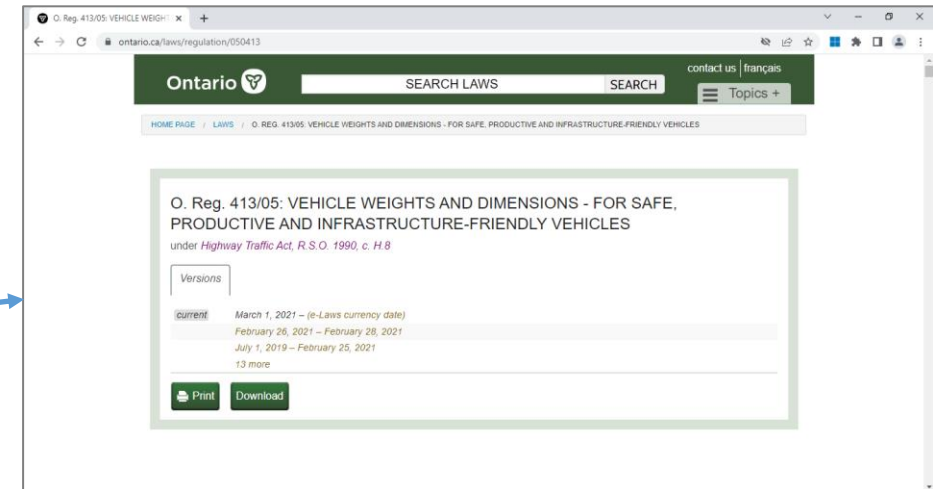
# Vehicle Weights and Dimensions (VWD)

- Ontario Regulation 413/05, Vehicle Weights and Dimensions (VWD) for Safe, Productive, and Infrastructure Friendly (SPIF) Vehicles:
  - July 2019
    - The weight limits for wide base single tires at par weights to the dual tires that they replace;
    - The loading of boats on stinger-steer auto carriers;
    - The operation of long wheelbase tractors on designated tandem tractor semitrailer configurations currently not privy to such an allowance;
    - Extend the overall length of designated saddlemount configurations;
    - Use of smart lift axles on tandem, tridem and quadruple axles on designated tractor semi- and double-trailers; and
    - Clarify the exemption allowing manual controls on designated trucks and tractors to lift a self-steering axle in emergency situations as to be designed to be activated separately and independently of the 4-way flashers.

# Vehicle Weights and Dimensions (VWD)

- November 2023
  - Clarify the exemption allowing manual controls on designated trucks and tractors to lift a self-steering axle in emergency situations as to be designed to be activated separately of the 4-way flashers
    - Amended [Section 5](#) of the regulation to modify the changes toward requiring for the self-steer lift axle controls to be separate and independent of the 4-way flashers, in addition to moving the effective date for emergency lift axle override switches from January 1, 2020, to January 1, 2024, so to accommodate those who purchased equipment during that time.

<https://www.ontario.ca/laws/regulation/050413>



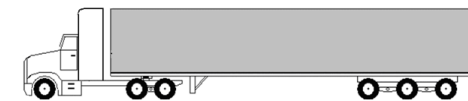
# Extended Semitrailers 18.45 metres (60 ft 6in) in length

- In February 2013, MTO commenced a trial operation allowing semitrailers **18.45 metres (60 ft 6in)** in length, **2.2 metres longer** than allowed in regulation.
- The trial operated under a limited number of SVC permits and allowed participants to operate on Ontario's roadways unrestricted (i.e., on all 'highways' in the province).
- The purpose of the trial was to evaluate road safety; impacts on road infrastructure (poles, signs, etc.); acceptance from other road users and municipalities; and to evaluate the potential impact on Ontario's trucking industry, including market and operational issues.
- MTO began evaluation of the Extended Semitrailer Trial commenced upon completion of **3.2 million kilometres** of travel by all participants combined.
- With this evaluation the ministry will determine whether to and/or how to proceed with a further measured roll-out of extended semitrailer operations.

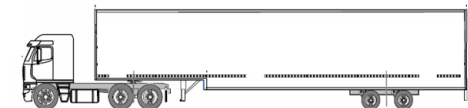
# Extended Semitrailers 18.45 metres (60 ft 6in) in length

- An **18.45 metre (60 ft 6in)** semitrailer provides more volume capacity as compared to 16.2 metre (53 ft) semitrailer, increasing carrier productivity by reducing truck trips required to move the same amount of freight.
  - Due to the fact there is no weight advantage between the standard 16.2 metre and the 18.45 metre semitrailers, these extended semitrailers are more suited toward light-bulky freight, that cubes the trailer out in volume before meeting allowable weight limits.
- **Strict tractor wheelbase dimensional criteria of 5.0 to 5.5 metres** allowed the configuration to maintain front and rear outswing to an appropriate level, however it required participants to further invest in a non-standard tractor design in addition to purchasing new non-standard length trailers.

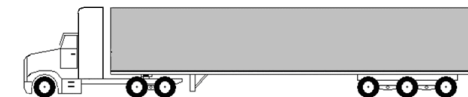
Van = ~14% more volume



Drop-deck Van = ~28% more volume



Container chassis = ~12% more volume



# Extended Semitrailers 18.45 metres (60 ft 6in) in length

- Results of Trial, ending December 31<sup>st</sup>, 2023.

	Carrier A	Carrier B	Carrier C	Carrier D	Carrier E	Total
<b>Total KM Travelled</b>	426,930	869,954	1,338,535	779,759	25,845	3,441,023
<b>KM Loaded</b>	218,180	654,816	1,034,792	479,297	25,808	2,412,893
<b>KM Empty</b>	208,750	215,138	303,743	300,464	37	1,028,132
<b>Total Trips</b>	2,162	3,403	6,069	13,303	395	25,332
<b>Trips Loaded</b>	1,037	2,474	4,614	9,888	394	18,407
<b>Trips Empty</b>	1,125	929	1,455	3,415	1	6,925
<b>Average Trip Length</b>	197	256	221	59	65	136

# Extended Semitrailers 18.45 metres (60 ft 6in) in length

- Conclusion:
  - Extended Semitrailers are mostly conducive to the movement of light-bulky freight, that takes up more volume than it does weight.
  - Carrier participants did see modest gains in productivity, leading to a reduction in trips, fuel and emissions while completing the same freight task.
  - Capital investments are required by carriers who wish to operate Extended Semitrailers, including power units and the trailers themselves as they are of non-standard design.
  - Route planning toward safely operating in certain scenarios is required as some origin/destination locations are not accessible for Extended Semitrailers.
  - While operating in urban settings, drivers must be aware and adjust for semitrailer outswings while navigating tighter settings.
  - It is likely that **~34% of all daily truck trips are conducive to Extended Semitrailers**, when considering goods being moved within Ontario and interjurisdictionally to the east.

# Extended Stinger-Steer Auto Carrier (ESSAC) Program

- The Extended Stinger-Steer Auto Carrier (ESSAC) Program is designed to allow ESSACs to operate with configurations in compliance with the US VWD regime. The idea was presented in 2016 by stakeholders who suggested that Ontario's VWD regulations be amended to align with those of the US Fixing America's Surface Transportation Act (FAST Act).
- The USA enacted the FAST act in 2015, changing aspects of the VWD regime to include regulations for Overall Length, Front Load and Rear Load Overhang limits.

In early 2017, MTO released a White Paper with all Program Conditions to stakeholders. The Paper outlined the specific conditions that ESSACs may operate under, and any other safety related concerns were mitigated through the SVC permit program.

- The ESSAC Program was launched on November 13, 2017.
- 3 Configuration Types -- Full ESSAC, Transitional Hybrid, and ON-ESSAC.



# Extended Stinger-Steer Auto Carrier (ESSAC) Program

- Full ESSAC

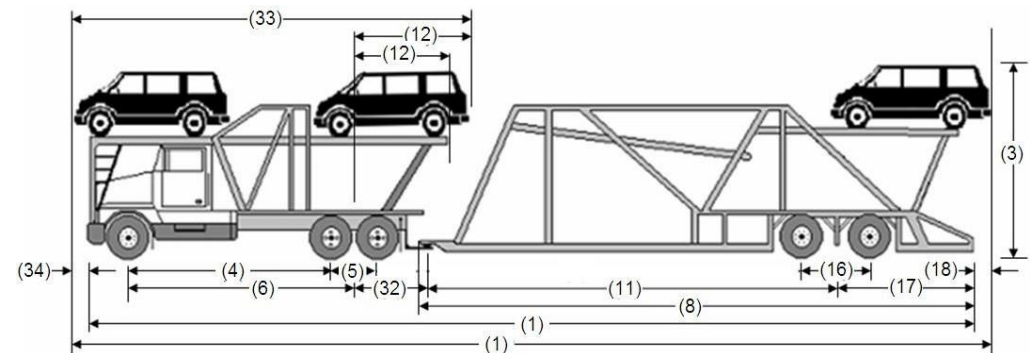
- Must travel along the authorized network of highways
- Overall Length = Max. 24.55 m
- Front Load Overhang = Max. 1.22 m
- Rear Load Overhang = Max. 1.83 m
- Tractor Wheelbase = Not controlled
- Trailer Length = Max. 15.24 m
- Trailer Wheelbase = 6.25 to 12.5 m

- Transitional Hybrid

- Must travel along the authorized network of highways
- Overall Length = Max. 23.0 m
- Front Load Overhang = Max. 1.22 m
- Rear Load Overhang = Max. 1.83 m
- Tractor Wheelbase = Not controlled
- Trailer Length = Max. 14.65m
- Trailer Wheelbase = 6.25 to 12.5 m

- ON-ESSAC

- Overall Length = Max. 24.55 m
- Front Load Overhang = Max. 1.0 m
- Rear Load Overhang = Max. 1.2 m
- Tractor Wheelbase = Min. 6.05 m
- Trailer Length = Not controlled
- Trailer Wheelbase = 10.75 to 12.5 m

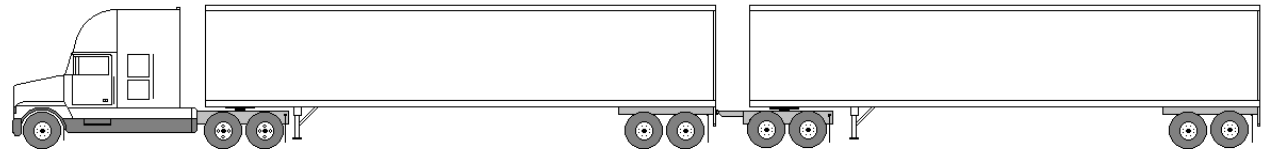


# Extended Stinger-Steer Auto Carrier (ESSAC) Program

ESSAC - Total Mileage & Trips Per Year		
	Total Kms Travelled	Total Trips
2019	67,685	270
2020	2,545,411	16,131
2021	4,552,640	28,761
2022	4,135,637	25,959
2023	5,391,537	36,119
Total	16,692,909	107,240

# Long Combination Vehicle (LCV) Program

- Long Combination Vehicles (LCVs) have been operating in Ontario since August 2009.
- 9 updates to Program Conditions since the program's inception.
  - February 3, 2011
  - February 23, 2012
  - February 5, 2013
  - February 12, 2014
  - November 19, 2014
  - March 1, 2015
  - January 23, 2017
  - November 8, 2019
  - May 10, 2021
- 3 revisions since the *MOU on Harmonization of Special Permit Conditions for Operation of Long Combination Vehicles in Eastern Canada* (2016) was established.



# Long Combination Vehicle (LCV) Program

- Substantial changes since the *MOU* was established in 2016:
  - 12.2 metre (40 foot) semitrailers in A-train LCVs
  - Addition of Twin Stinger-Steer LCV Auto Carrier
  - Allowing the transportation of non-ERAP requiring dangerous goods
  - Addition of Ontario's *Workplace Safety and Insurance Act* requirements



# Long Combination Vehicle (LCV) Program

LCV - Total Mileage & Trips Per Year		
	Total Kms Travelled	Total Trips
2009	1,279,519	4,122
2010	5,417,159	17,193
2011	7,204,225	21,288
2012	9,730,815	30,264
2013	11,355,825	36,967
2014	11,006,489	36,164
2015	12,137,643	40,254
2016	13,113,352	42,976
2017	10,934,544	36,535
2018	10,351,572	33,107
2019	12,460,226	39,051
2020	15,290,418	45,555
2021	16,979,305	54,148
2022	18,239,664	57,049
2023	15,802,551	48,123
Total	171,303,306	542,796

# Truck Parking

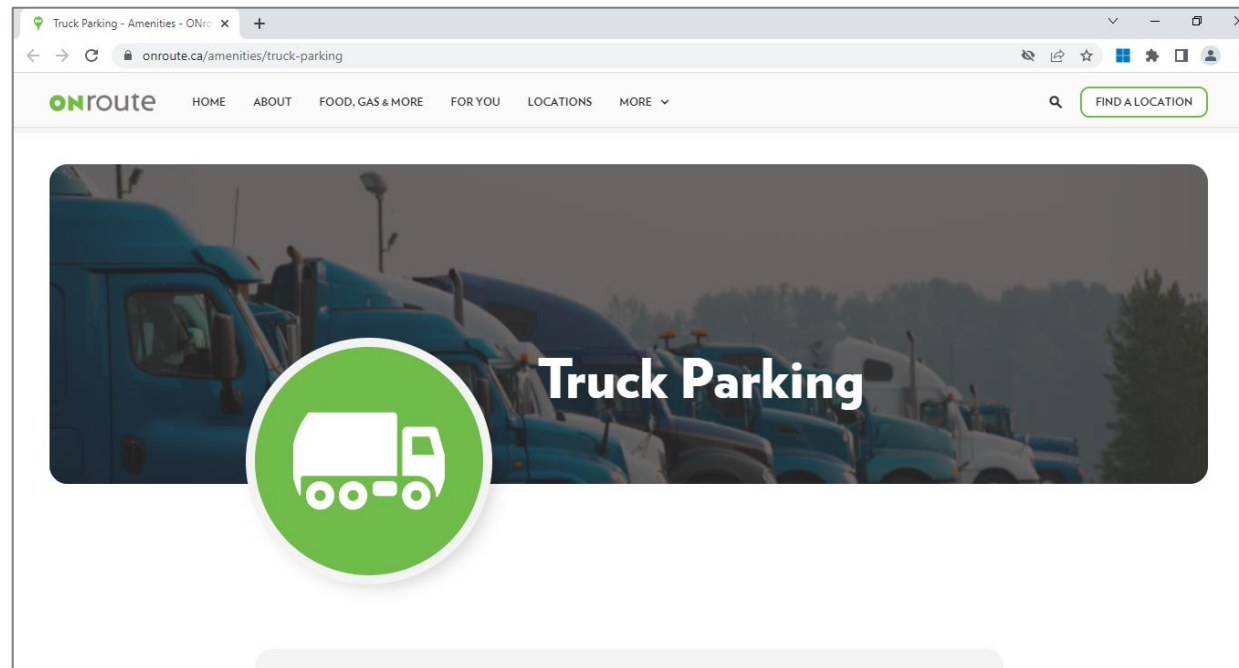
- The ministry understands that providing truckers with a place to rest is a priority and has gone well beyond studying this issue to actually building and improving truck parking.
- In January 2021, the Minister of Transportation announced a **five-year rest area expansion program** to provide truck drivers with more places to safely stop and rest while moving goods.
- This program will result in the construction of **10 new rest areas**, the **rehabilitation of 14 other rest areas** along with the **addition of approximately 165 truck parking spaces** at four ONroutes. Further improvements are also being explored.

**ON**route



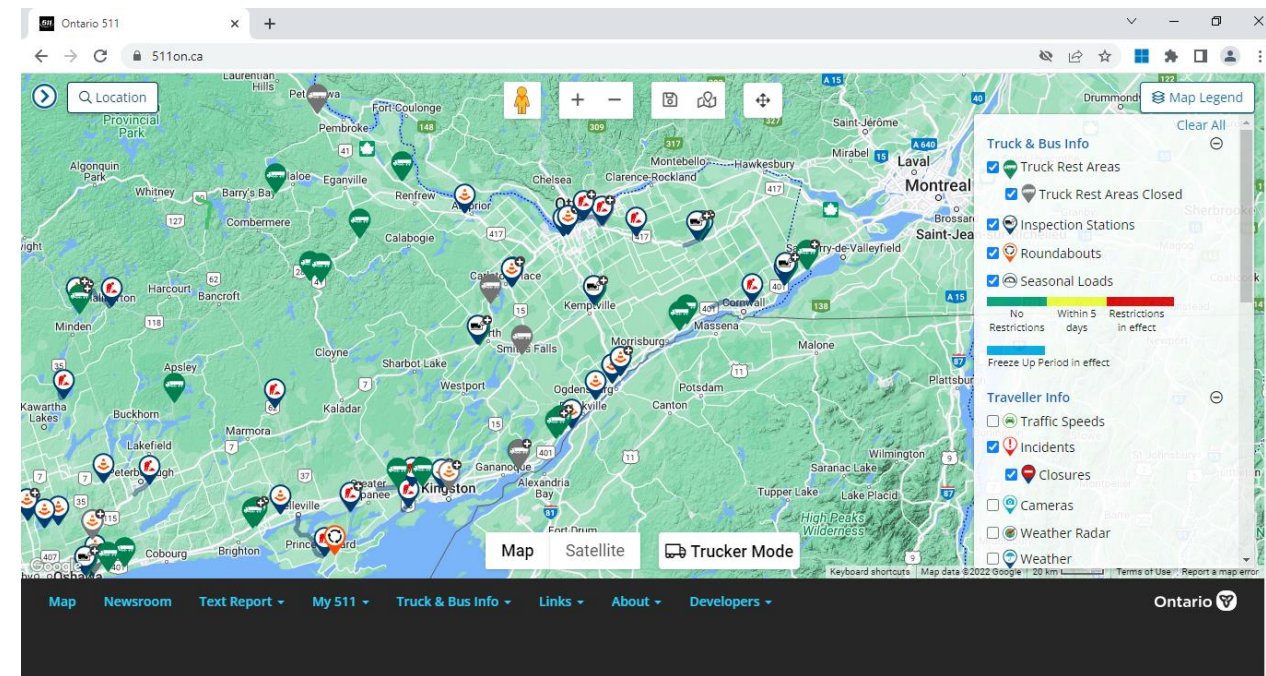
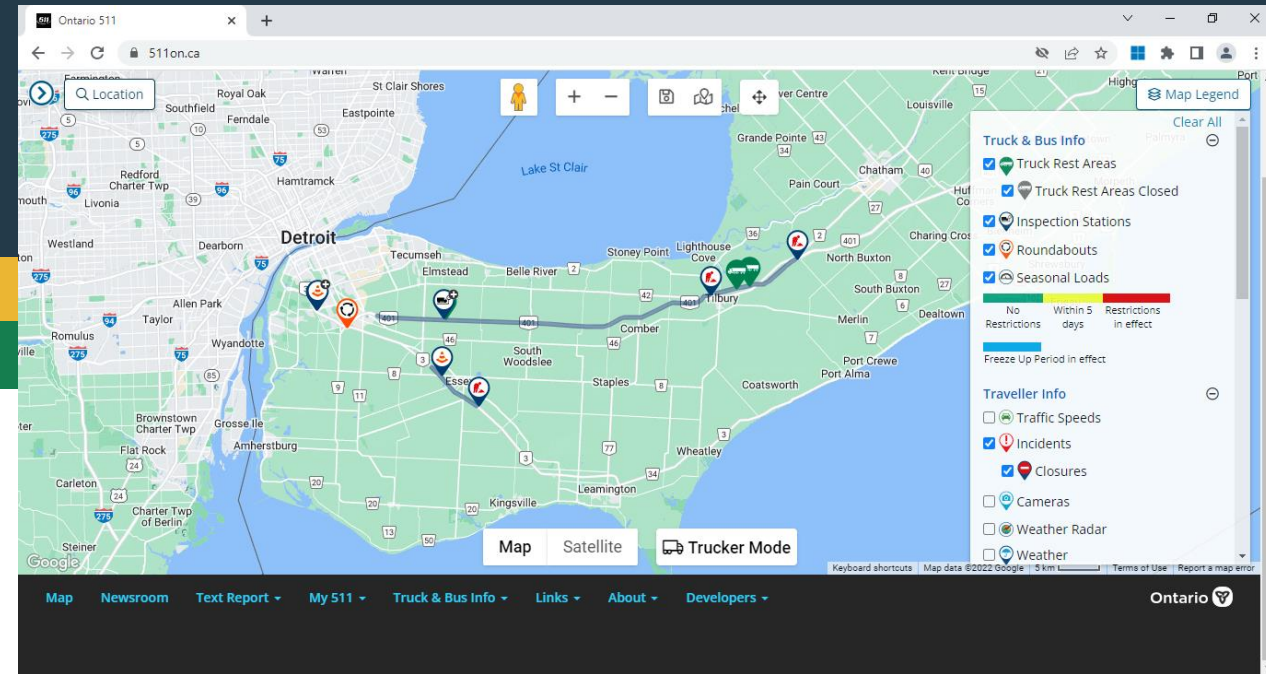
# Truck Parking

- Along the highway 401 and 400 corridors alone two new truck parking facilities were opened in Southern Ontario this past summer. One facility on **Highway 402, provides parking for 14 trucks and Long Combination Vehicles (LCVs) in close proximity to the border crossing at Sarnia.** Another new truck parking facility was opened on **Highway 401, near Gananoque with an additional 29 parking spaces for trucks and LCVs.** Eight rehabilitation projects with truck parking have been completed and construction is scheduled to start on 3 new rest areas along Highways 11 and 17 in Northern Ontario.



# Truck Parking

- Typically rest stops and truck inspection stations/stops are designed to accommodate a variety of vehicle configurations. Drivers can easily find suitable parking spots using the interactive map on **Ontario 511 “trucker mode”**.
- A free 511 app was launched in early 2020, that provides truck drivers with immediate access to the information they need while delivering goods across the province.
- The Ontario 511 app includes **up-to-date highway information on construction, collisions and road closures** as well as winter features Track My Plow, Environment Canada weather warnings and reported road conditions. It also identifies **open rest areas and locations** throughout the province **that offer food and fuel**.
- The app includes an easy-to-use map view and features a drive mode that provides **hands free audio alerts**.





# CONTACT:

## ***Joe Lynch, P.Eng.***

***Senior Vehicle Standards Engineer***

*Ministry of Transportation*

*125 Sir William Hearst Ave, 3<sup>rd</sup> Floor,*

*Toronto, ON*

*M3M 0B5*

*Telephone: 416-389-8308*

*Email: [joe.lynch@ontario.ca](mailto:joe.lynch@ontario.ca)*