

Going the Extra Mile for Safety

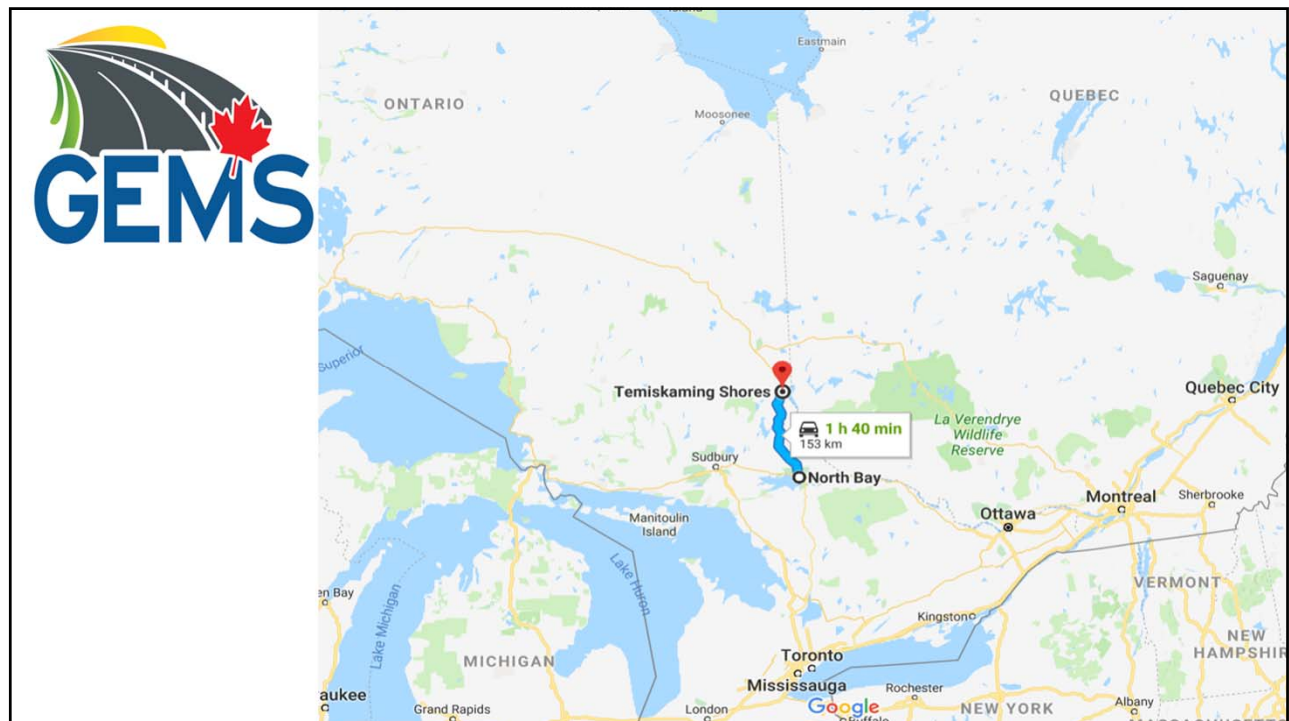


2+1 Roads

Swedish Innovation
Northern Ontario Solution

Summary of research trip
to Sweden and Ireland

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Vision Zero

Innovative Road Safety Program in Sweden

“ In every situation that a person might fail, the road system should not”

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Vision Zero Results

Location	Road related fatalities per 100,000 population
SWEDEN	2.5
Southern Ontario	3.6
Canada	5.2
Northern Ontario	8.0

Sweden 2017 Canada 2016 Ontario 2014

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Before 2+1 Roads - 13m - 2 lane roads

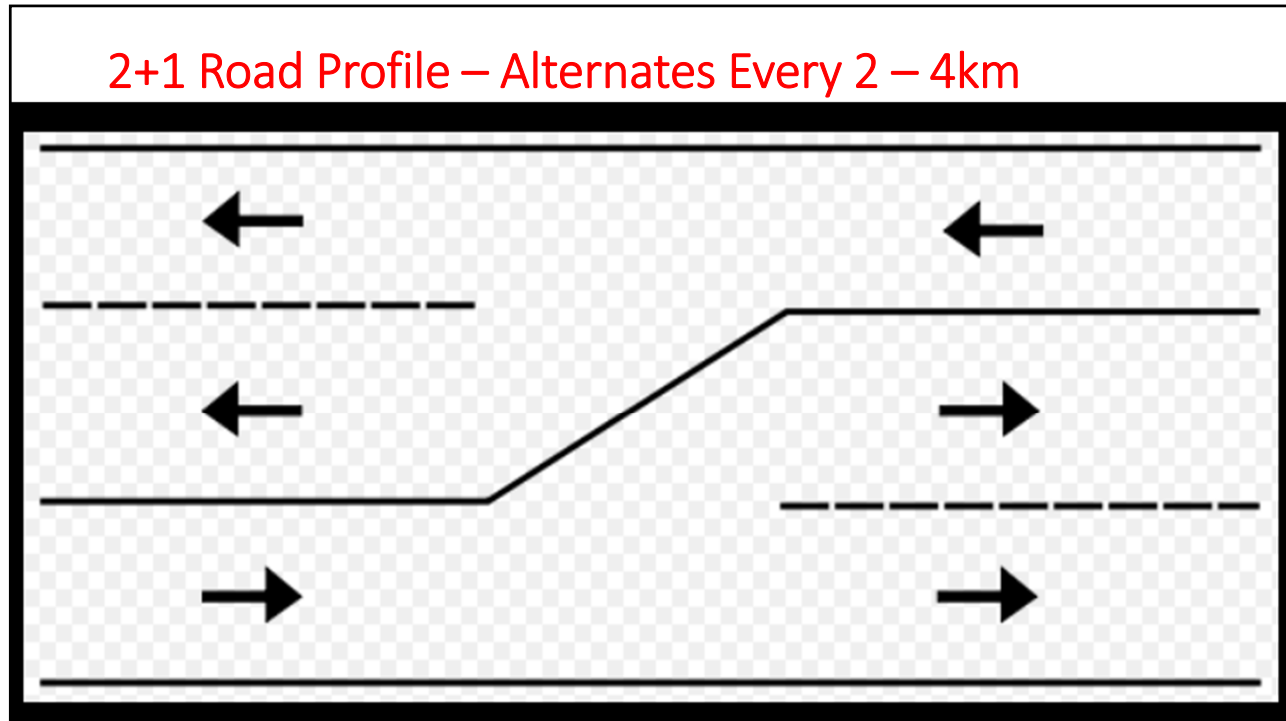


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After 2+1 Conversion



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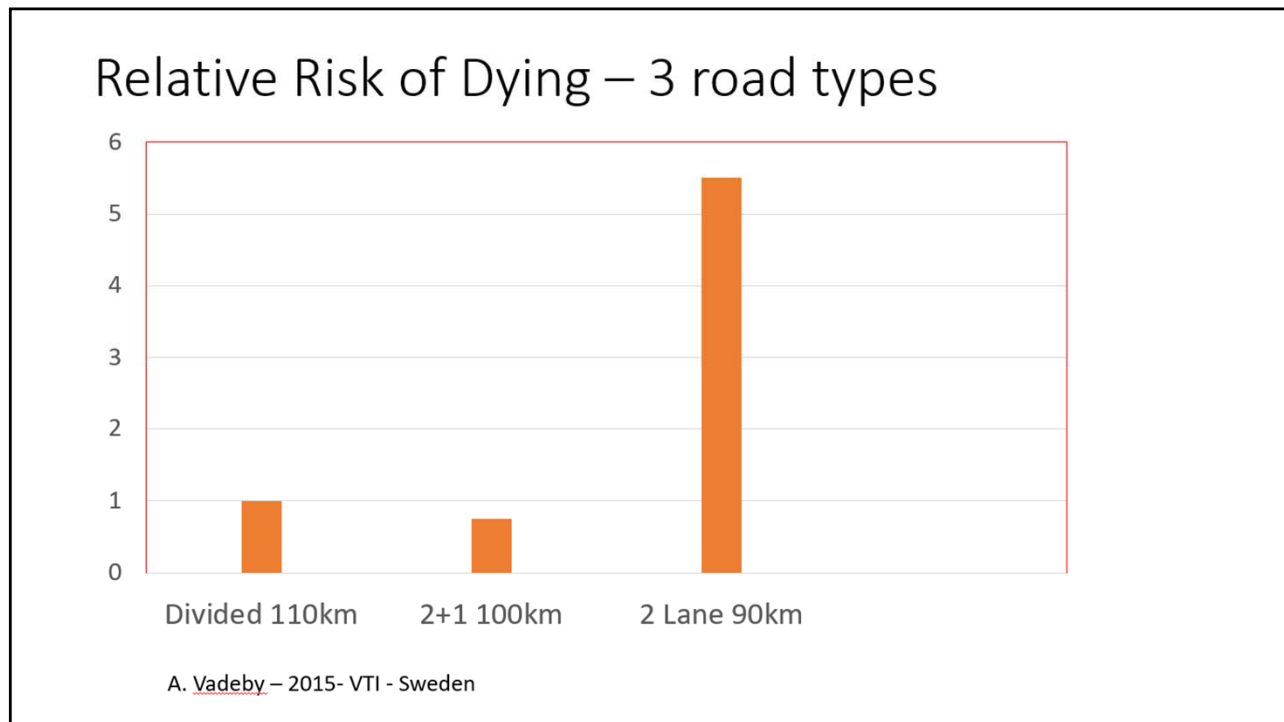
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2+1 Road Safety Results Carllsson - 2009

Reduction in Fatalities	79%
Reduction in Motorcycle fatalities	40-50%

Carllsson - 2009

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Alternative to Twinning

70% -75% lower cost to build than divided highways

Volumes-2,000 to 20,000 AADT

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Works in Winter Conditions



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At Grade Intersections



Google Streeview

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Benefits of 2+1

Built on existing road bed

Does not by-pass rural towns and villages

Safety record equal to divided highways

Financially responsible way to build safe roads

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E22 – Sweden

11 – Northern ON



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Thank you

