

# Going the Extra Mile for Safety



# 2+1 PILOT PROJECT



Road Safety Advocacy  
Committee

Sub- Committee of  
Temiskaming Shores Area  
Chamber of Commerce

Advocating for a 2+1 Pilot  
Project

# 2+1 Roads – Swedish Innovation Canadian Rural Road Solution



# VISION ZERO

Innovative Road Safety Program

Established in Sweden 1997

Has now been adopted in other countries  
and cities around the world

In every situation where a person may fail,  
the road system should not

# 2+1 Roads

## A Result of VISION ZERO

The most significant road safety improvement on rural roads in Sweden

Ireland followed Sweden in 2004 with pilot projects

Many other countries have 2+1 roads

# 2+1 Road Safety Results

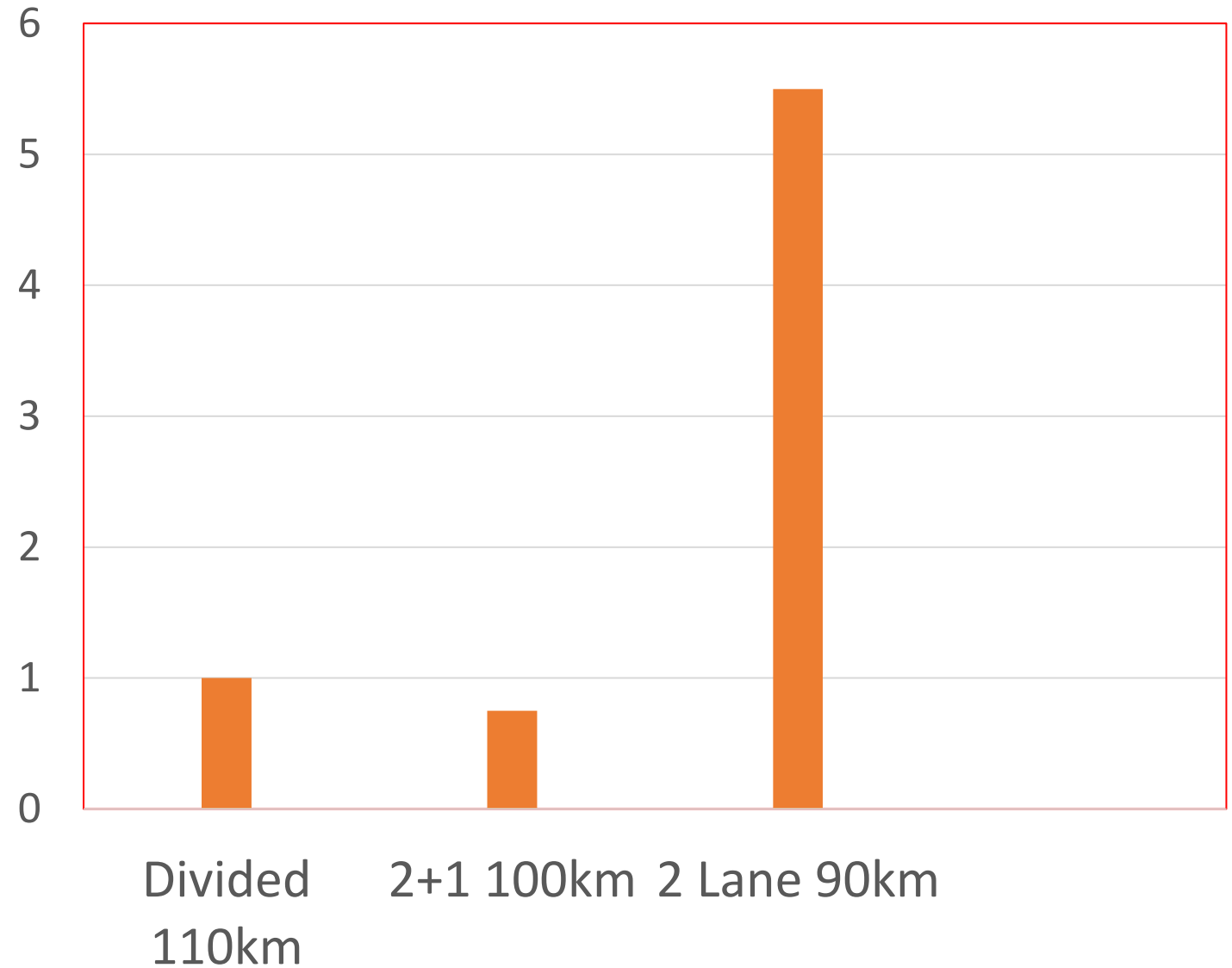
Carllsson - 2009

Reduction in Fatalities	79%
Reduction in Motorcycle fatalities <small>Data compares fatalities on entire 2+1 network from 1998 to 2007 with projected fatality rates for normal 13m undivided roads for the same network. Network length in 2007 was 1800 km of 2+1 roads.</small>	40-50%

# Relative Risk of Dying – 3 road types

---

- A. Vadeby – 2015- VTI - Sweden



# Vision Zero Results

Location	Road related fatalities per 100,000 population
SWEDEN	1.8
Southern Ontario	3.9
Canada	5.2
Northern Ontario	9.4



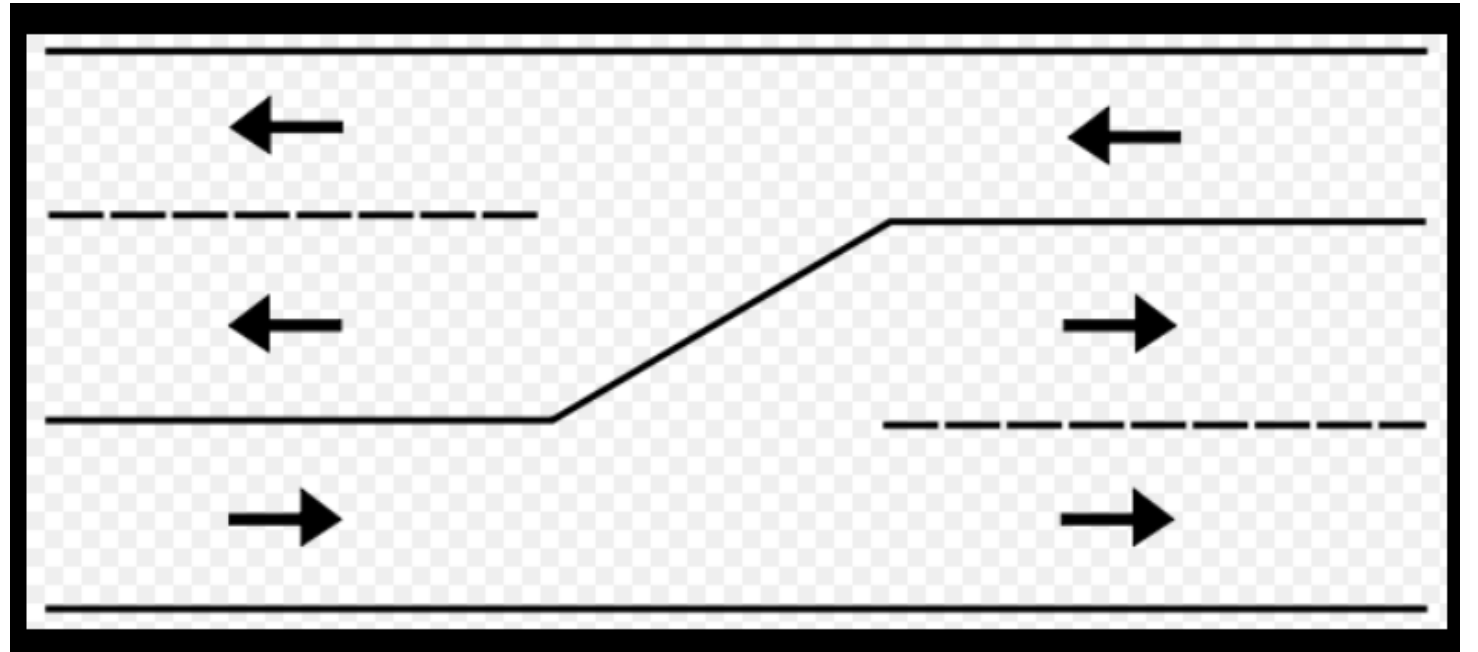








# 2+1 Road Profile



# Volume Capacity

---

2,000 - 20,000

AADT



# Speeds and Performance

Slightly higher travel speeds

Most increase in 2 lane sections

Traffic performance very good up to 1500 vph





# Barrier Types







Trafikverket - Sweden

# Irish 2+1







Nordic Road Safety - Sweden









## INTERSECTIONS – At Grade



# Road Maintenance



# Winter Maintenance

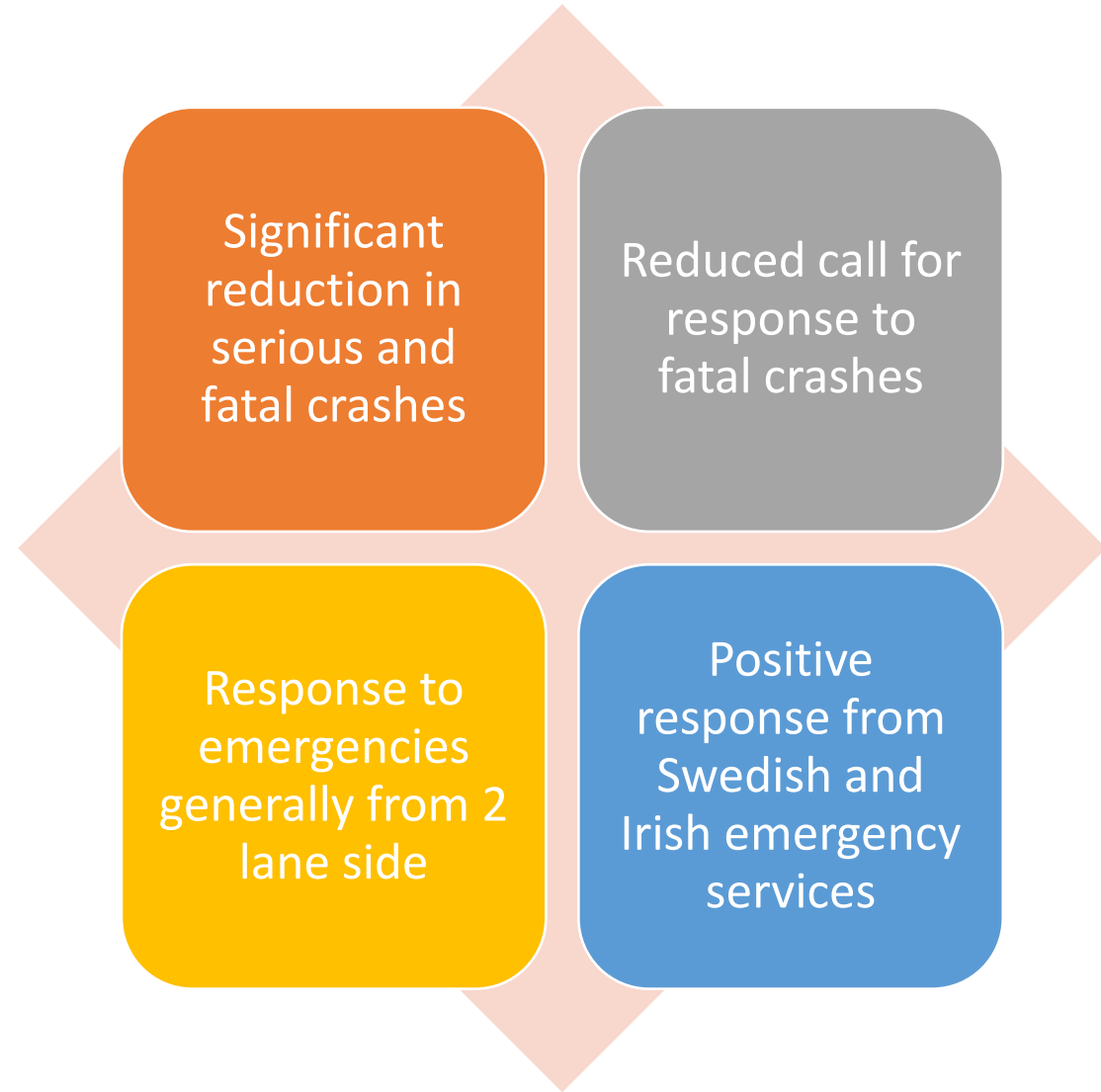






TRUCKING

# Emergency Response



## 2+1 Roads - Summary

Safety results equivalent to divided highways

Low cost

Less Environmental Impact

Design flexible to terrain

Restricted areas 1+1

Expansion opportunities 2+2

Effective on rural road networks

Continue to be built around the world





Quebec – Route 50



Ontario  
Government  
has  
committed  
to a 2+1  
pilot project

Working Group currently  
working on details

Location and design  
criteria announcement  
Late 2021 and early 2022

Going the Extra Mile for Safety



Mark Wilson – 705-622-2376