

Geometric Design in Canada



2016 TII National Roads Conference
Mullingar, Ireland, September 2016
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142 x Size

1M km

1600AD

-63C to 45C

35M

100K km

1500 BC

-19C to 33C

4.7M





Linking settlements



Linking settlements



Safe-rapid-economical



**300'-500'-1000'-
1500'-2500'**



Transportation System



Transportation System



Outside influences



Terrain



Weather



Winter



Wildlife



Wildlife



Improvements



Extravagance vs weakness



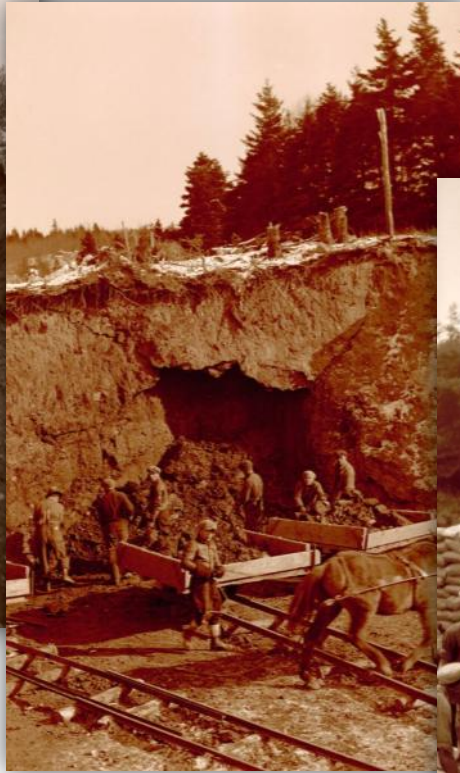
Increased Speed



Landowners



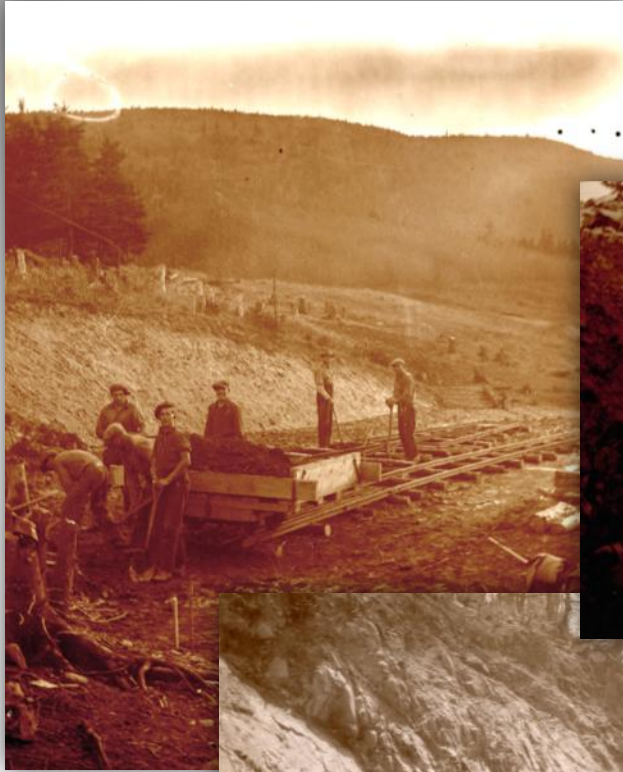
Highways



Standard Specification



Ease of movement



Earth Balance



Earth Balance



Sight distance



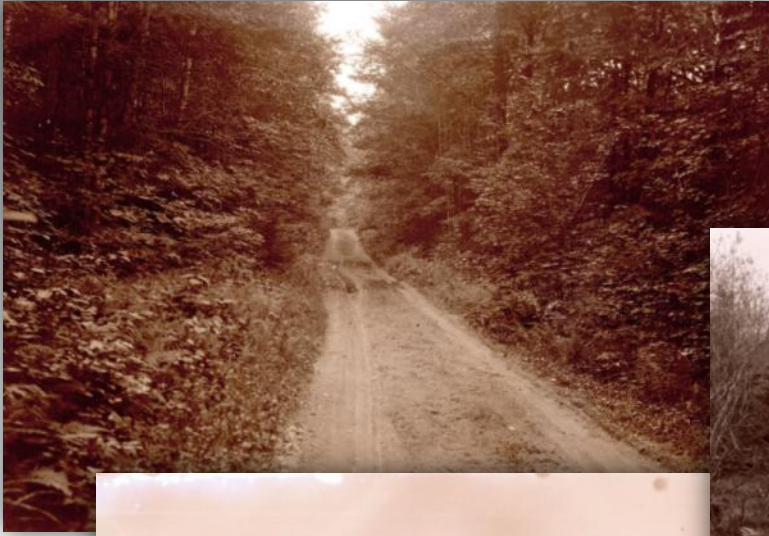
Widen and correct



Gradual improvement



Highway expert



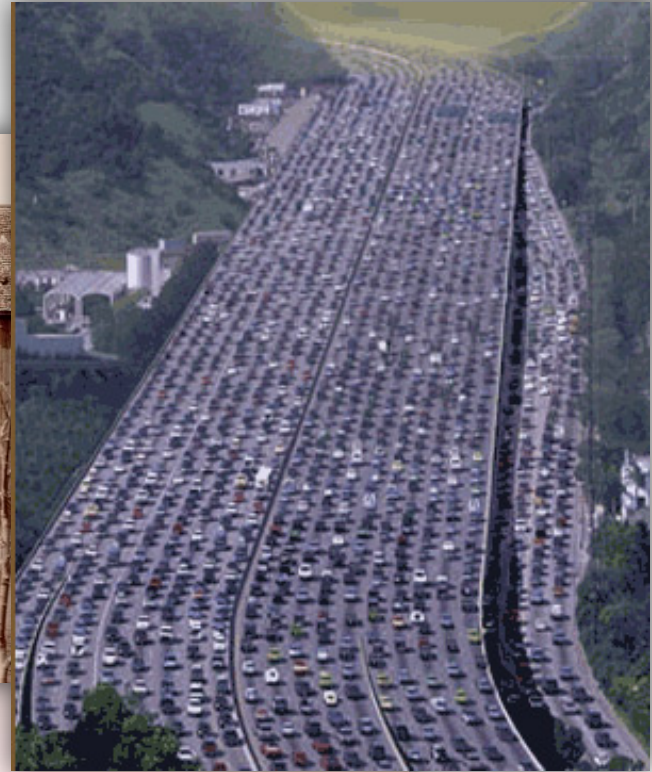
Ditch widths



Lane widths



Multimodal shift



1900 – 6k
1925 – 650k
1928 – 900k
2015 – 24M



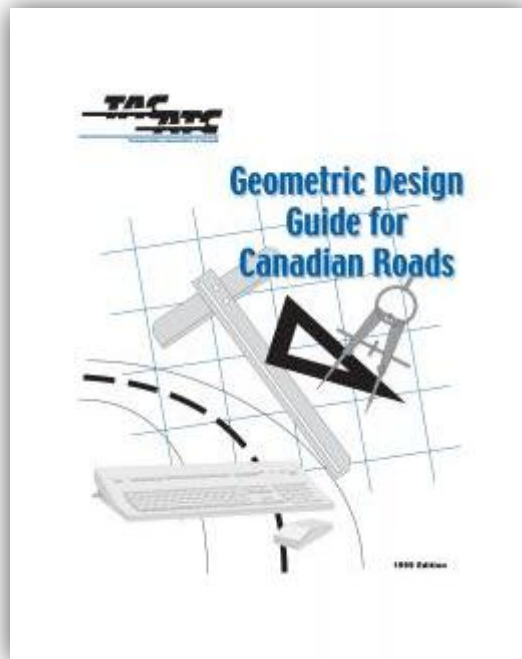
Effects on Design



Widening



Road Safety



Intersection sight distance

Roadside design

Modern roundabout design

Context sensitive design

Design speed principles



Fiscal policy



Vulnerable road users

Design flexibility

Human factors science

**Low volume &
resource roads**

**Performance-based design:
Safety outcomes**

Enhanced roundabout guidance

**"Looking back over the problems that have been presented
clearly, the one in the distance
is written with a vaguer; get to the end of the future is
seen their outlines more distinctly."**



**-H.W. Giffin 1937
Canadian Good Roads Association**