Be inspired

Dutch examples of bicycle bridge design

ipv Delft creative engineers

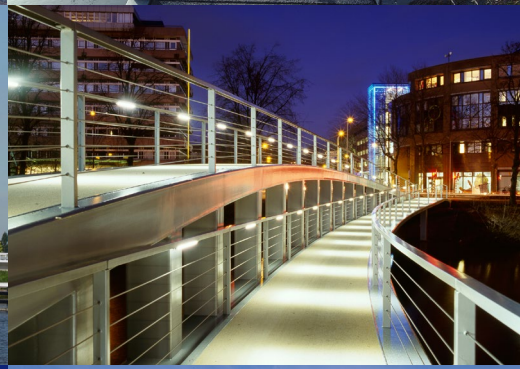
Ivo Mulders M. Sc.

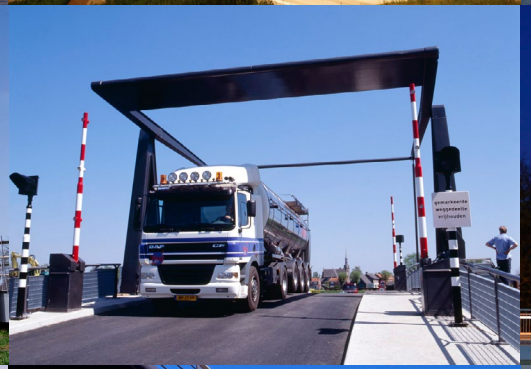








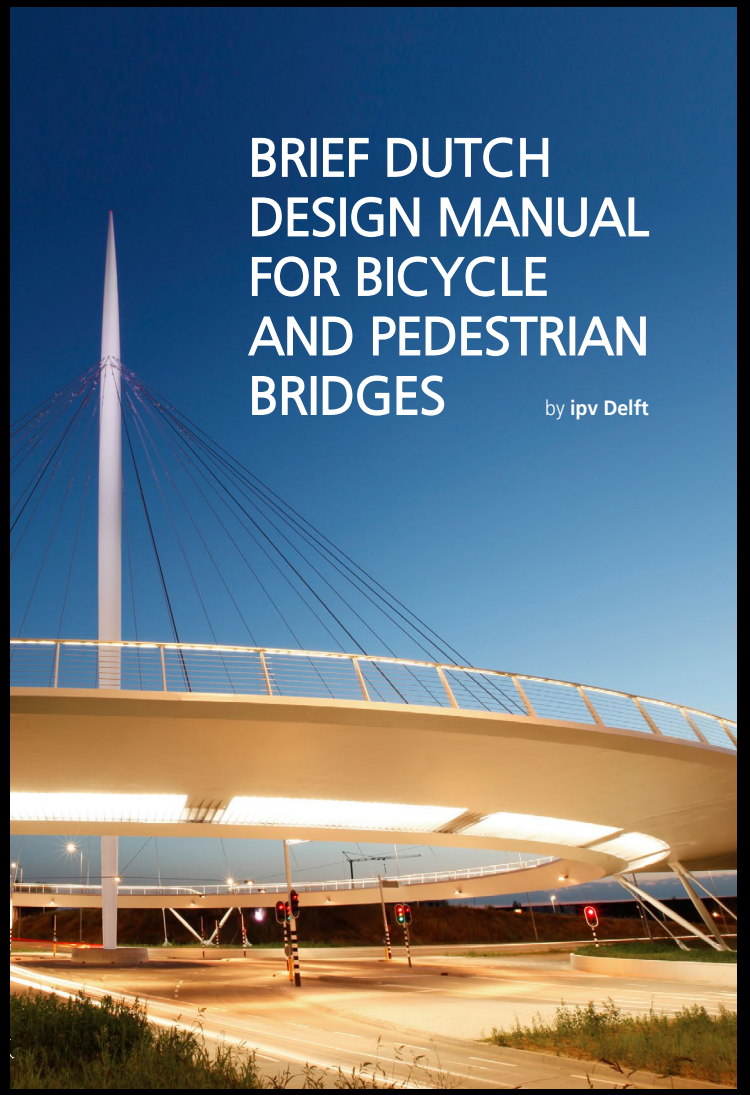





Dutch Design Guide

English summary

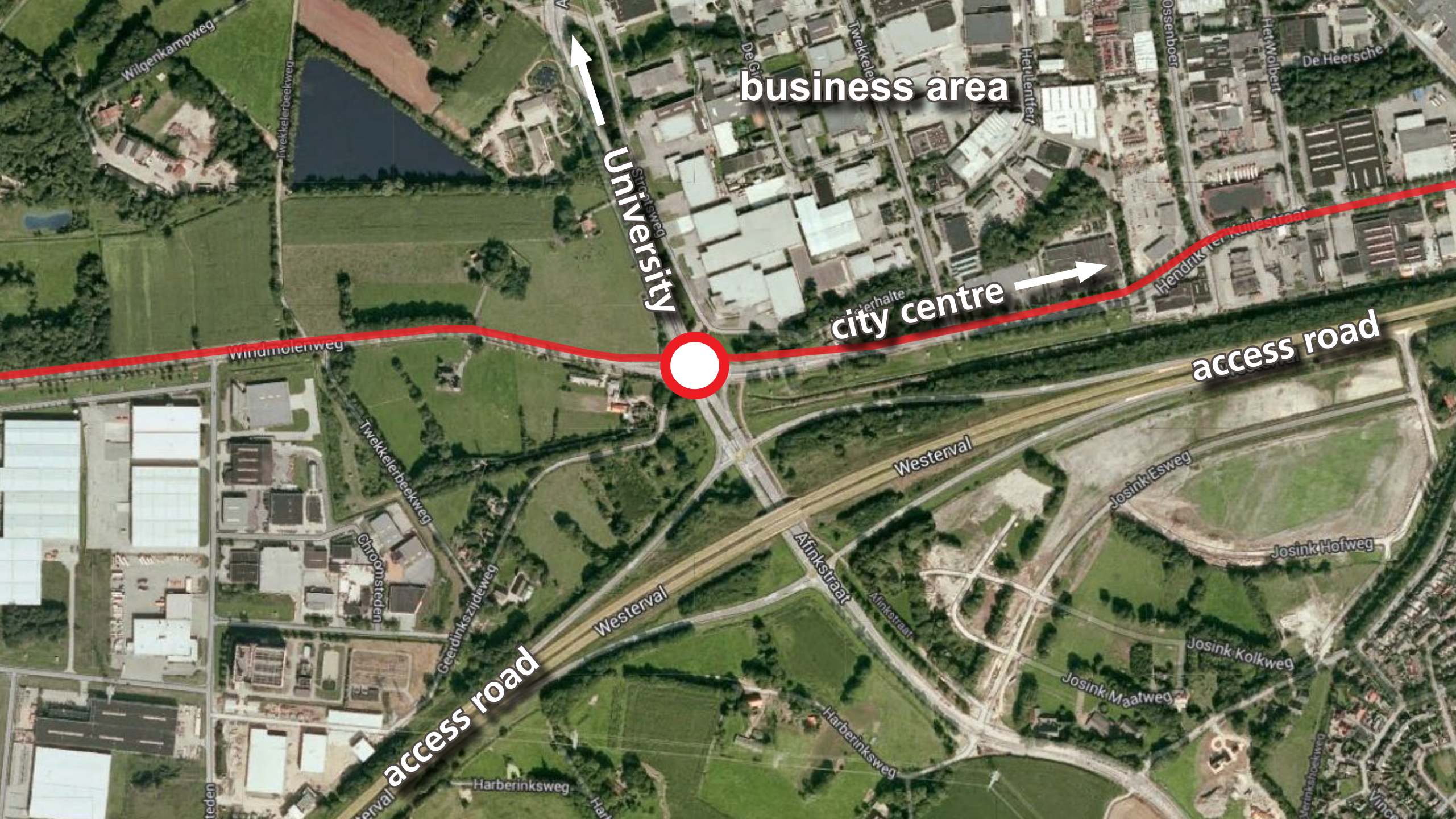
www.ipvdelft.com/brief-dutch-design-manual

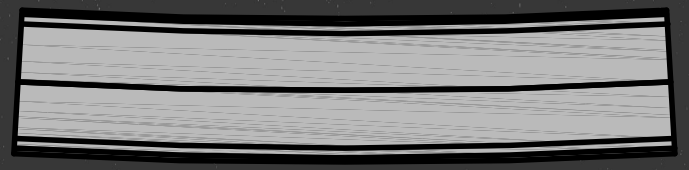


Dutch Design Manual for bicycle and pedestrian bridges

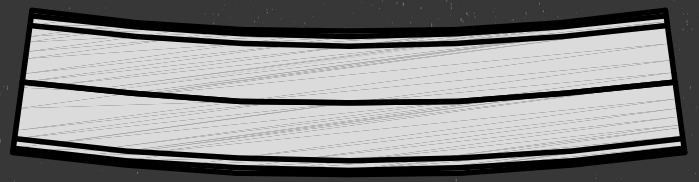
Bridges: an essential part of cycling infrastructre

Bridges are gap closers


business area
University
city centre
access road
access road
Wilgenkampweg
Twekkelerbeekweg
Windmolenweg
Twekkelerbeekweg
Chroomsteden
Geerdinkszijdeweg
Westerval
Westerval
Afinkstraat
Afinkstraat
Harberinksweg
Harberinksweg
Josink Esweg
Josink Hofweg
Josink Kolkweg
Josink Maatweg
Het Lentfert
Het Wolbert
De Heersche
Hendrik ter Kuilestraat



R 180 m (5x)

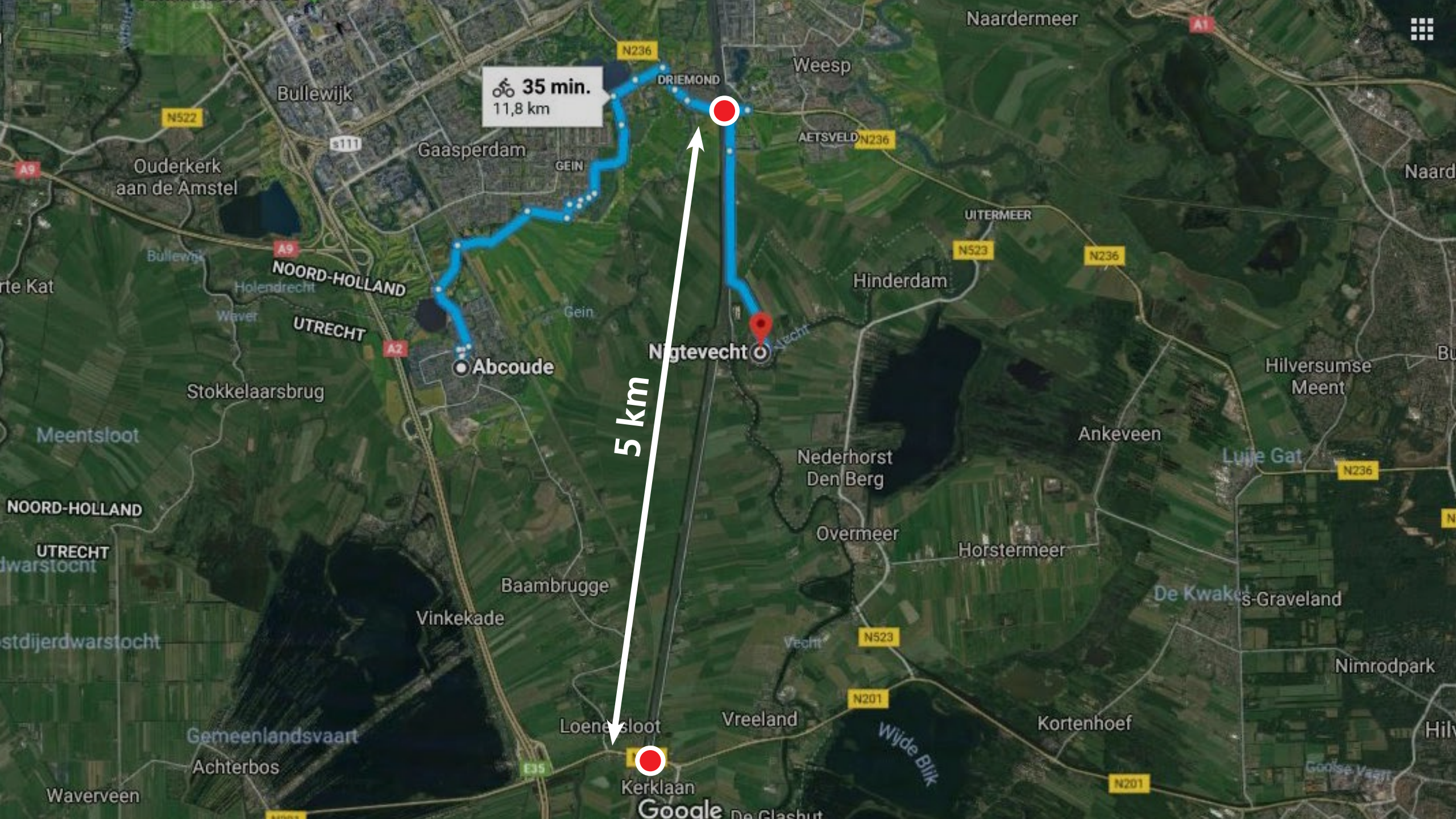


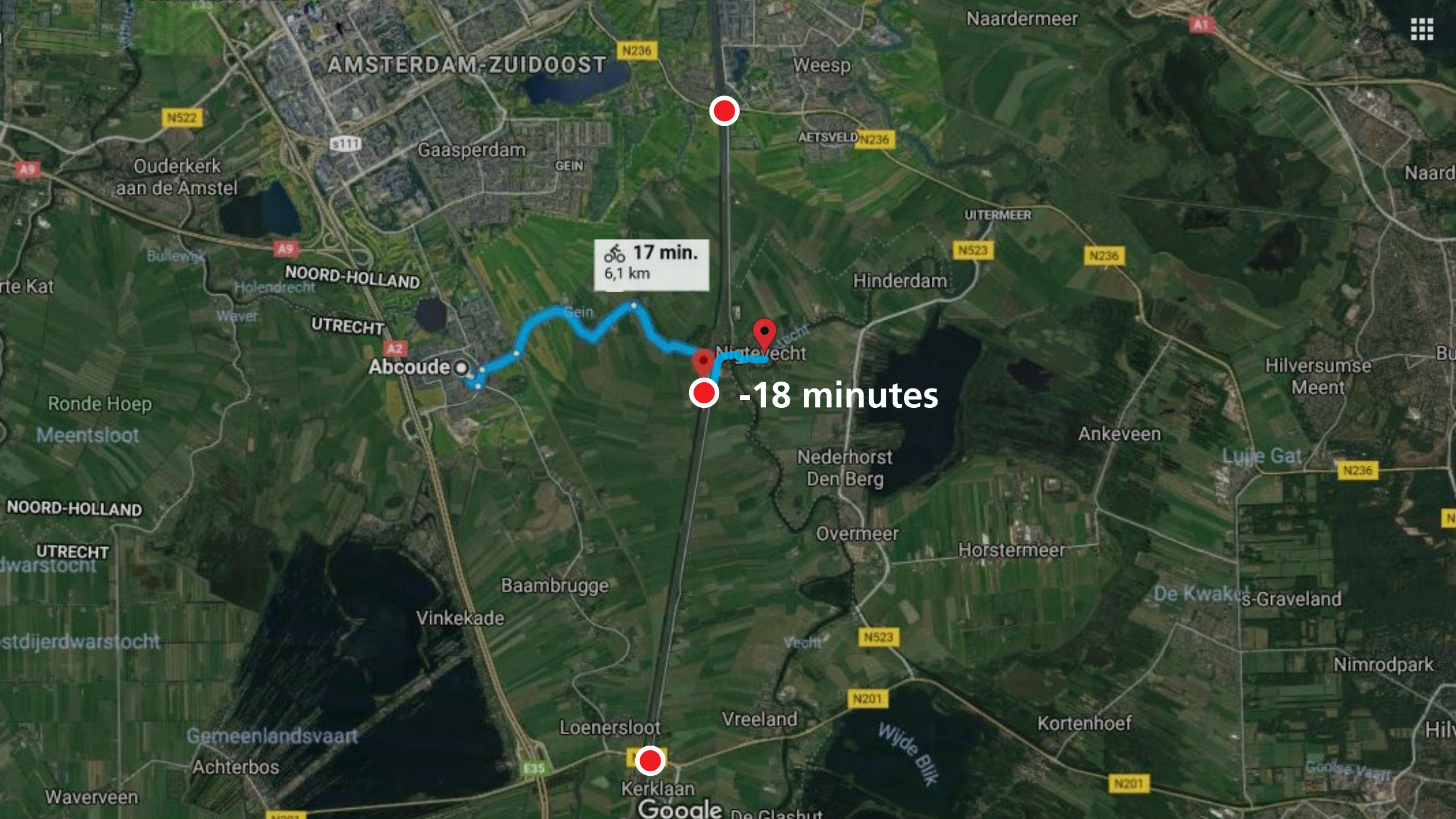
R 75 m (5x)

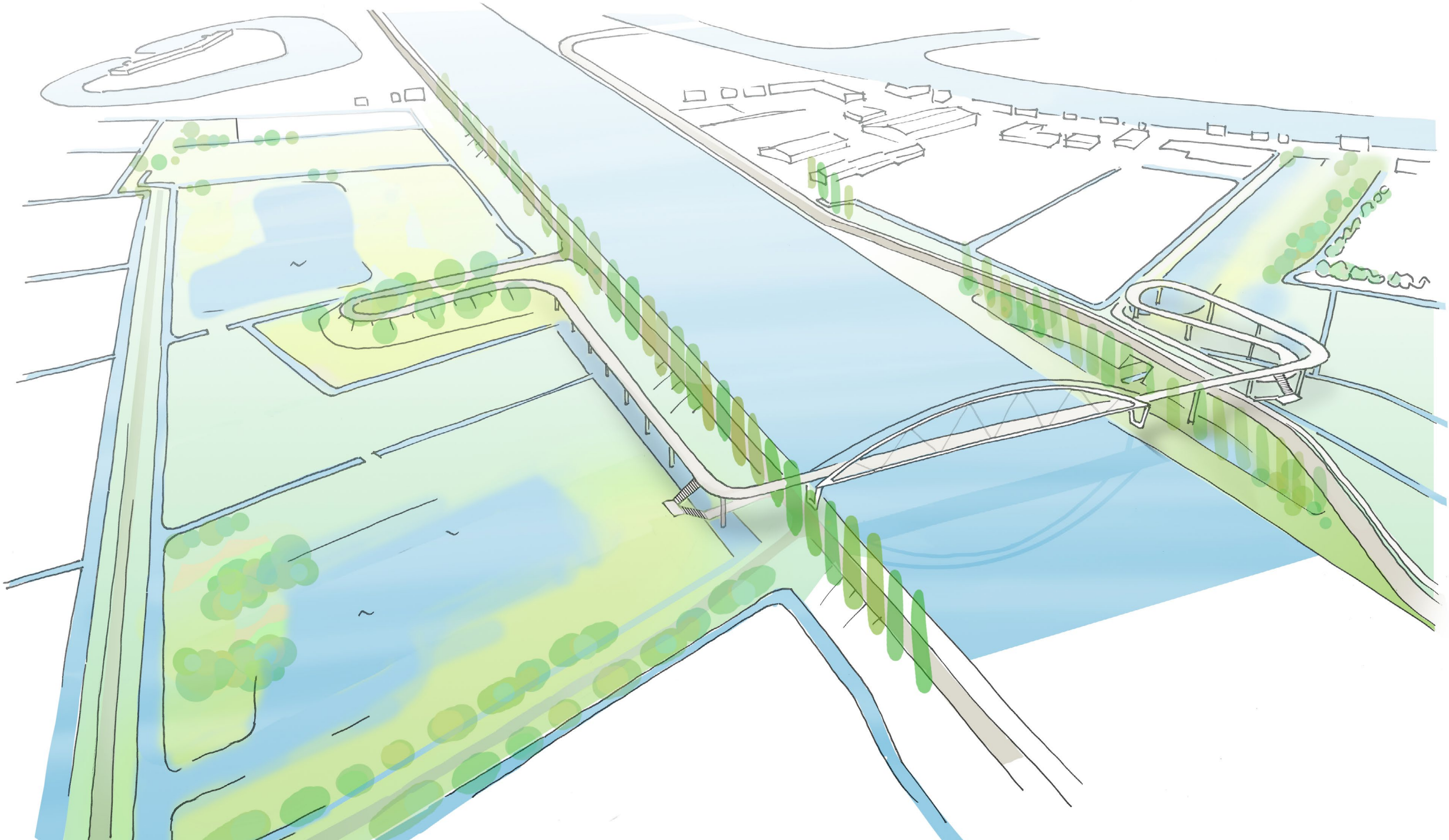

Google BR

bridge length	280 m
ramp length	150 m
width	3.5 m
budget	€2.0 million
costs	€1.4 million

Bridges shorten travel time

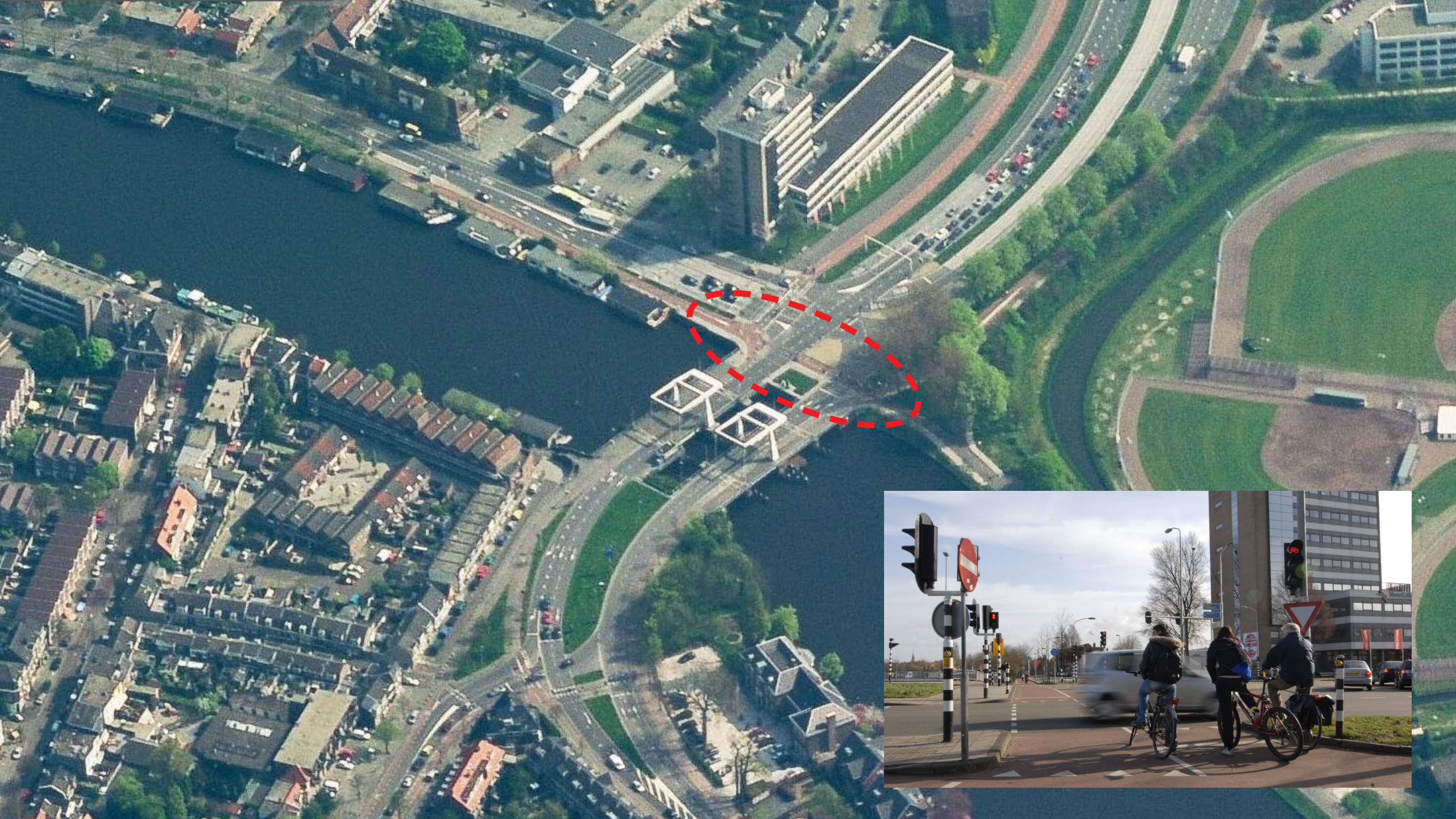

35 min.
11,8 km
5 km
Abcoude
Nigtevecht
Kerklaan
Bullewijk
Gaasperdam
GEIN
DRIEMOND
Weesp
Naardermeer
AETSVELD
UITERMEER
Hinderdam
Ouderkerk
aan de Amstel
NOORD-HOLLAND
UTRECHT
Stokkelaarsbrug
Meentsloot
Baambrugge
Vinkekade
Nederhorst
Den Berg
Overmeer
Horstermeer
Ankeveen
Hilversumse
Meent
Luije Gat
De Kwakel
Graveland
Nimrodpark
Vreeland
Kortenhoef
Wyde Blik
Gemeenlandsvaart
Achterbos
Waverveen
Google
N236
N522
N523
N201
A9
A2
E35

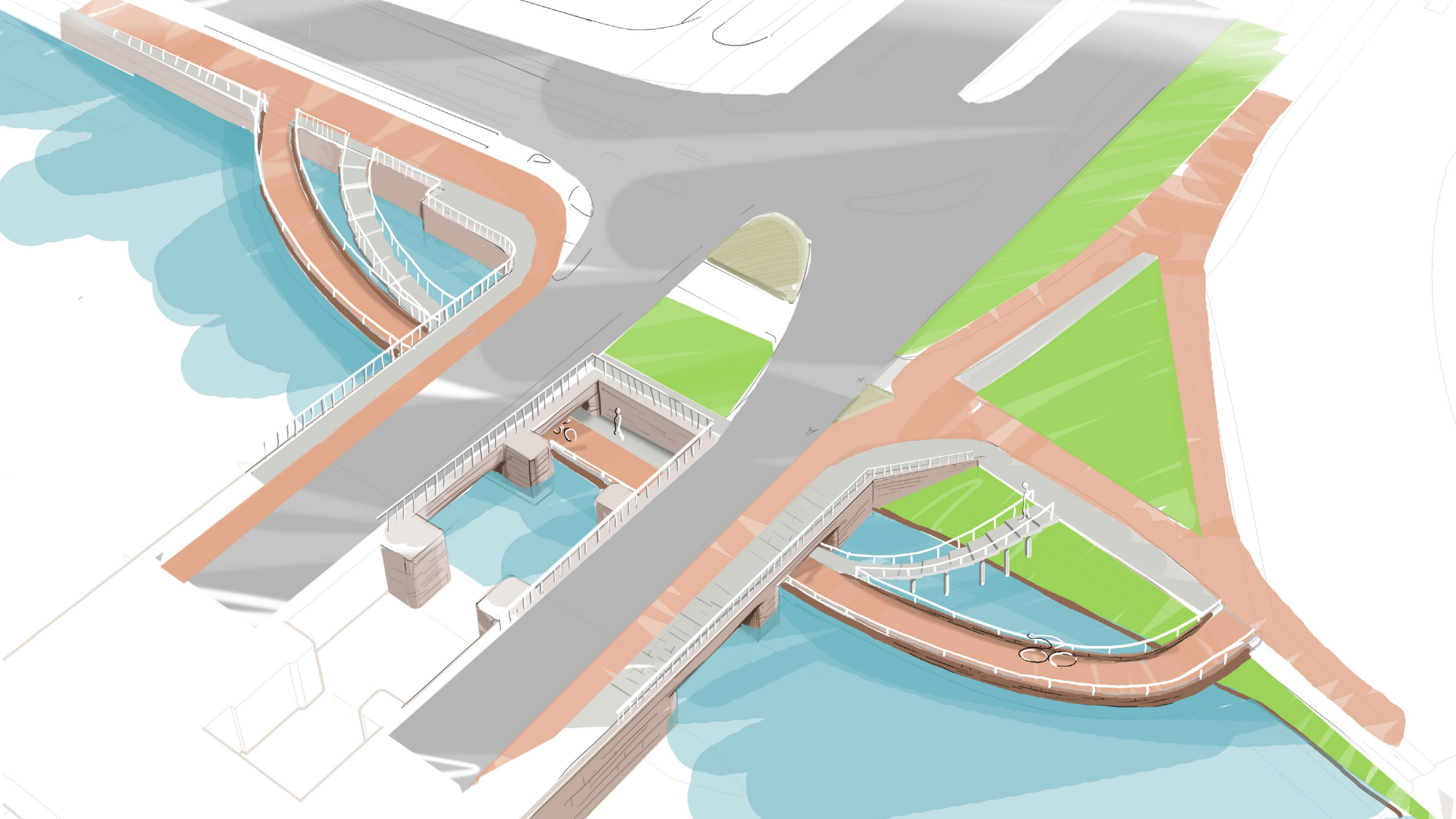

17 min.
6,1 km
-18 minutes
Abcoude
Loenersloot
Kerklaan
AMSTERDAM-ZUIDOOST
Naardermeer
Weesp
Gaasperdam
Ouderkerk
aan de Amstel
GEIN
AETSVELD
UITERMEER
Hinderdam
Hilversumse
Meent
Ankeveen
Nederhorst
Den Berg
Overmeer
Horstermeer
Baambrugge
Vinkekade
Vreeland
Kortenhoef
Nimrodpark
Ronde Hoep
Meentsloot
Gemeenlandsvaart
Achterbos
Waverveen
Wyde Blik
Hinderdam
Gein
Vecht
Holendrecht
Bullewijk
Wavet
NOORD-HOLLAND
UTRECHT
N236
N522
N523
N201
A1
A2
A9
E35
s111



bridge length	795 m
ramp length	690 m
width	4-5 m
budget	€8.2 million

Bridges enhance safety


RR




6

length:	110 m
width:	5 m
slope:	< 4%
estimated building costs:	€1.8 million
actual building costs:	€1.1 million

Bridges can become landmarks

Rio-Niterói bridge

JK Bridge, Brasília

Octavio Frias Bridge, Sào Paulo

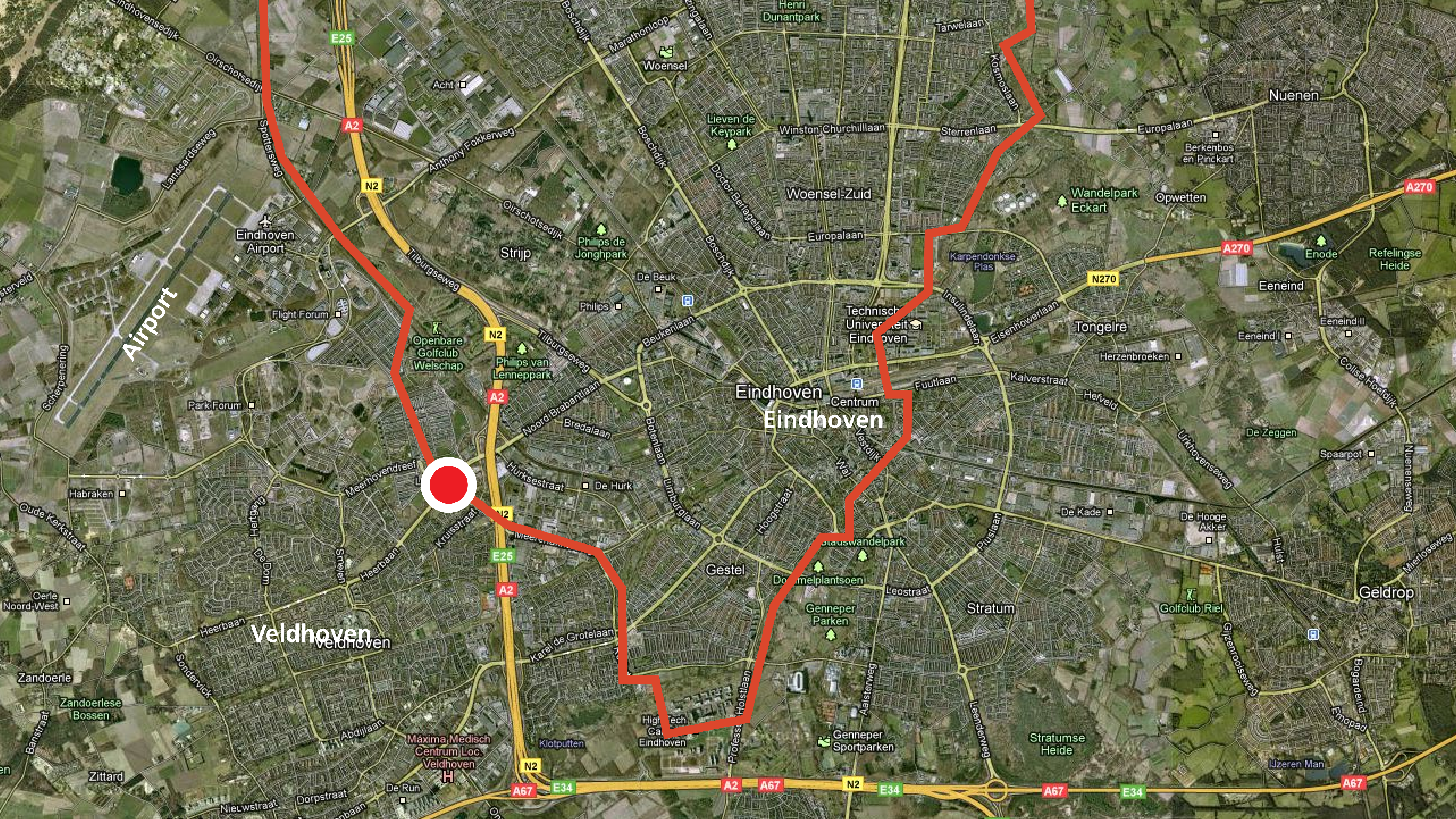
Bridges can become landmarks

Bridges bring economical benefits

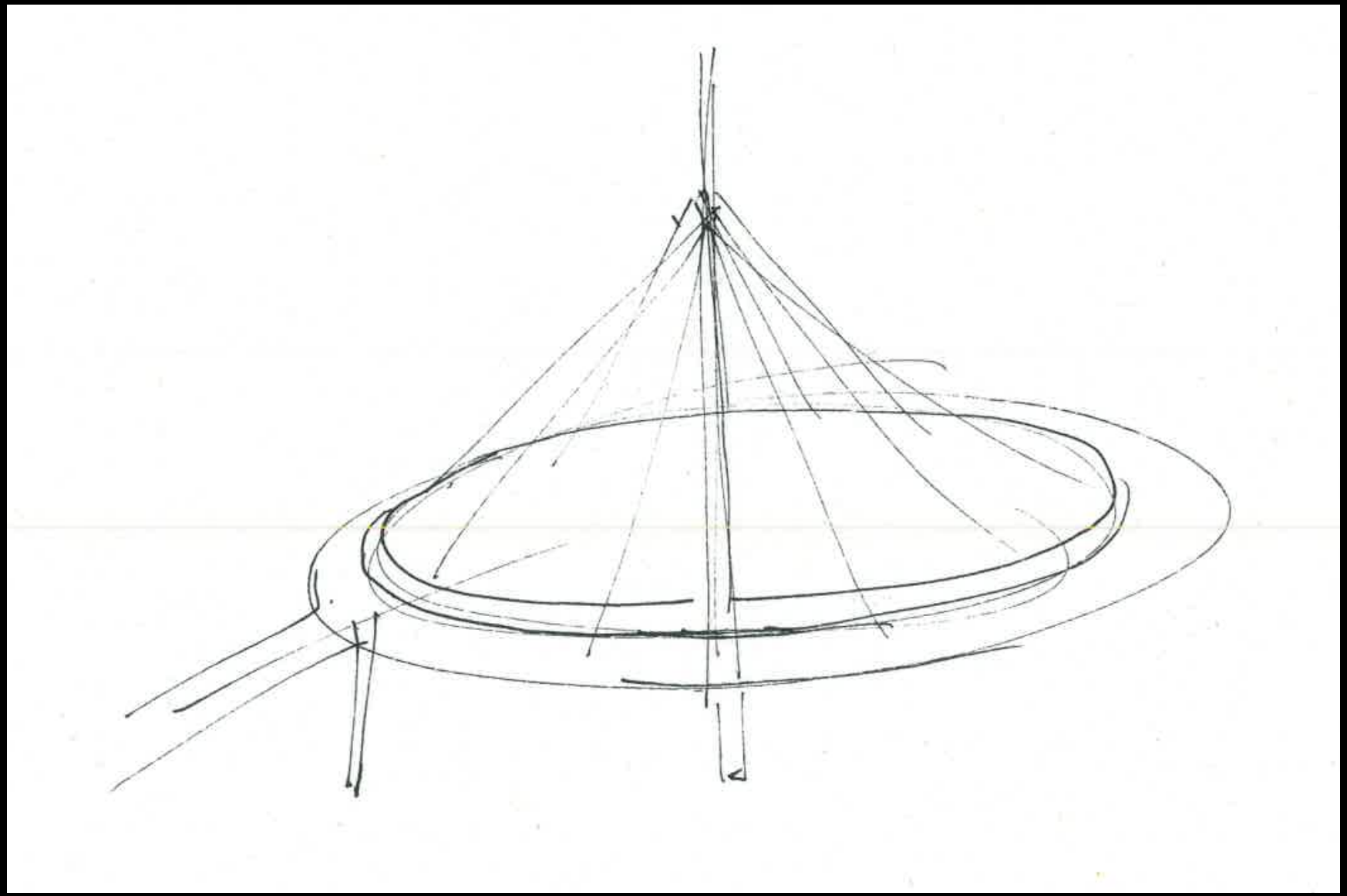
1665

2018

Bridges can be advertisers of cycling infrastructure



Airport
Eindhoven Airport
Flight Forum
Park Forum
Strijp
Woensel
Woensel-Zuid
Eindhoven
Centrum
Technische Universiteit Eindhoven
Nuenen
Tongelre
Eeneind
Gestel
Stratum
Geldrop
Veldhoven
Zandoerle
Habraken
Acht
Opwetten
Philips de Jonghpark
Philips van Lenneppark
Openbare Golfclub Welschap
Stadswandelpark
Genneper Parken
Genneper Sportparken
Stratumse Heide
Karpendonkse Plas
Wandelpark Eckart
Lieven de Keypark
Henri Dunantpark
Golfclub Riel
Zandoerlese Bossen
Máxima Medisch Centrum Loc. Veldhoven
High Tech Campus Eindhoven
A2
A67
A270
N2
N270
E25
E34
Europalaan
Tarwelaan
Sterrenlaan
Winston Churchilllaan
Boschdijk
Marathonloop
Tilburgseweg
Anthony Fokkerweg
Oirschotsedijk
Beukenlaan
Noord Brabantlaan
Bredalaan
Hurksestraat
Botenlaan
Limburglaan
Insulindelaan
Kalverstraat
Fuutlaan
Leostraat
Heerbaan
Kruisstraat
Karel de Grotelaan
Meerhovendreef
Landsardseweg
Spottersweg




Sørens

cars	20000 daily
cyclists	5000 daily
pylon height	70 m
stay cables	24, Ø 50
outer diameter	72 m
path width	4.5 m
deck surface	1300 m²

steel structure	1015	tons
budget	€ 8.5 million	
estimated	€ 6.5 million	
building costs	€ 6.3 million	

Hovenring

Eindhoven, The Netherlands

Design strategies for bicycle bridges

start with complex locations

innovative design (save costs)

utilize exisiting bridges and tunnels

combine bicycle and traffic or railway bridges

look for the best location (save costs and shorten travel time)

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thank you