ThinkBike Workshop.

DUTCH CYCLING EMBASSY

PALM BEACH Metropolitan Planning Organization

ThinkBike Workshop Experts

DUTCH CYCLING EMBASSY

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Dutch Cycling: For a Cycle-Friendly World

The Dutch Cycling Embassy is a vast network of public and private organizations from the Netherlands who wish to share their knowledge and expertise to help cities experience the many advantages of cycling.

- **Experience** the Dutch cycling culture first-hand
- **Think** about best possible solutions and achievable results
- **Act** by applying these solutions to your local context
- **Learn** more about effective policies and best practices


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ThinkBike Workshop Agenda

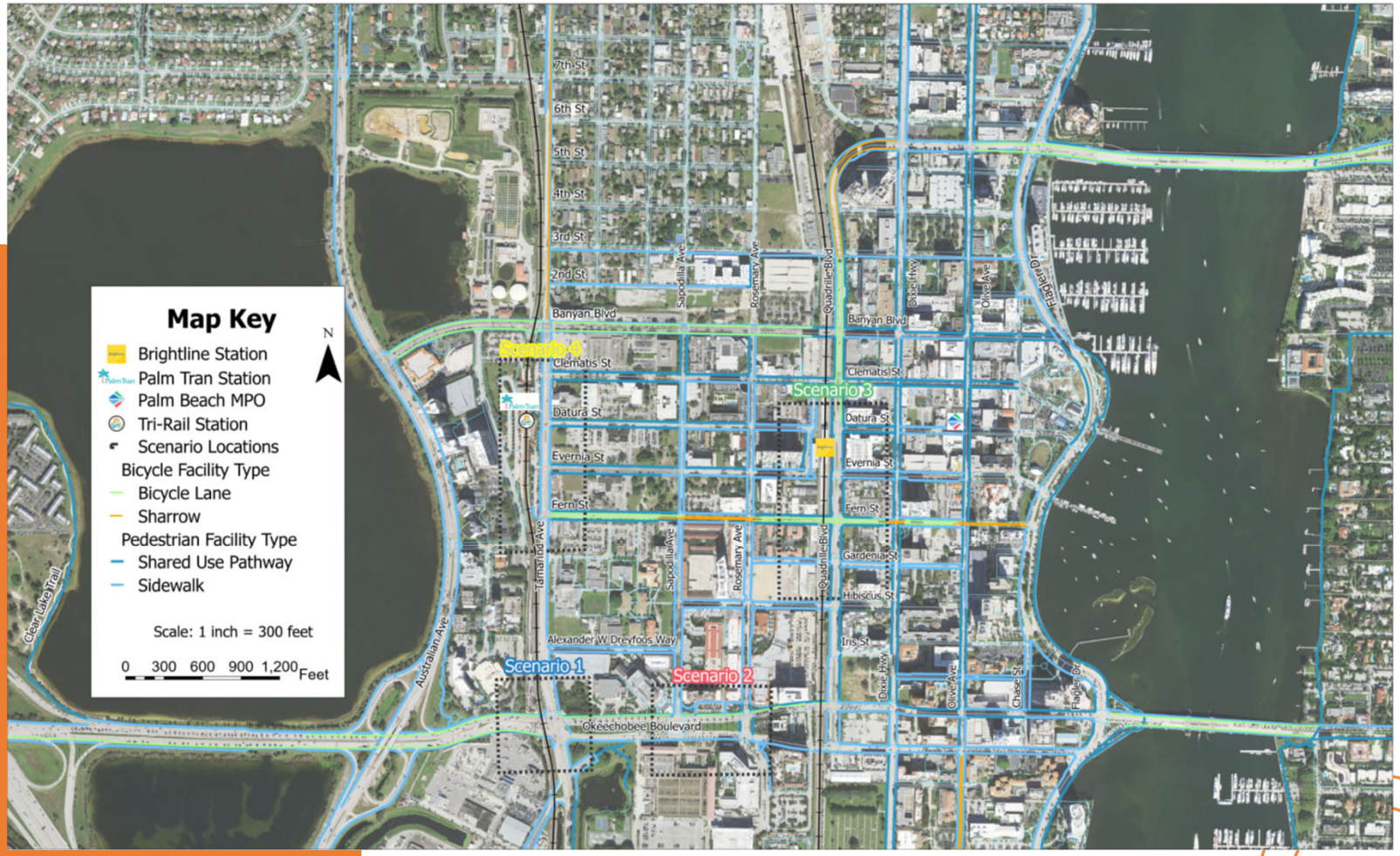
DUTCH CYCLING EMBASSY

Tuesday, January 13, 2025	
Time	Activity
8:45 a.m.	Networking and Coffee
9:00 a.m.	Welcome & Introductions
9:15 a.m.	MPO Opening Presentation
9:30 a.m.	DCE Introduction & Workshop Overview
10:15 a.m.	Presentation 1 – Community Engagement and Communication
11:00 a.m.	Breakout Session 1
12:00 p.m.	Lunch
1:15 p.m.	Recap Breakout
2:00 p.m.	Presentation 2 – Public Transit and Cycling
2:45 p.m.	Breakout 2
3:45 p.m.	Recap Breakout
4:30 p.m.	End of day 1

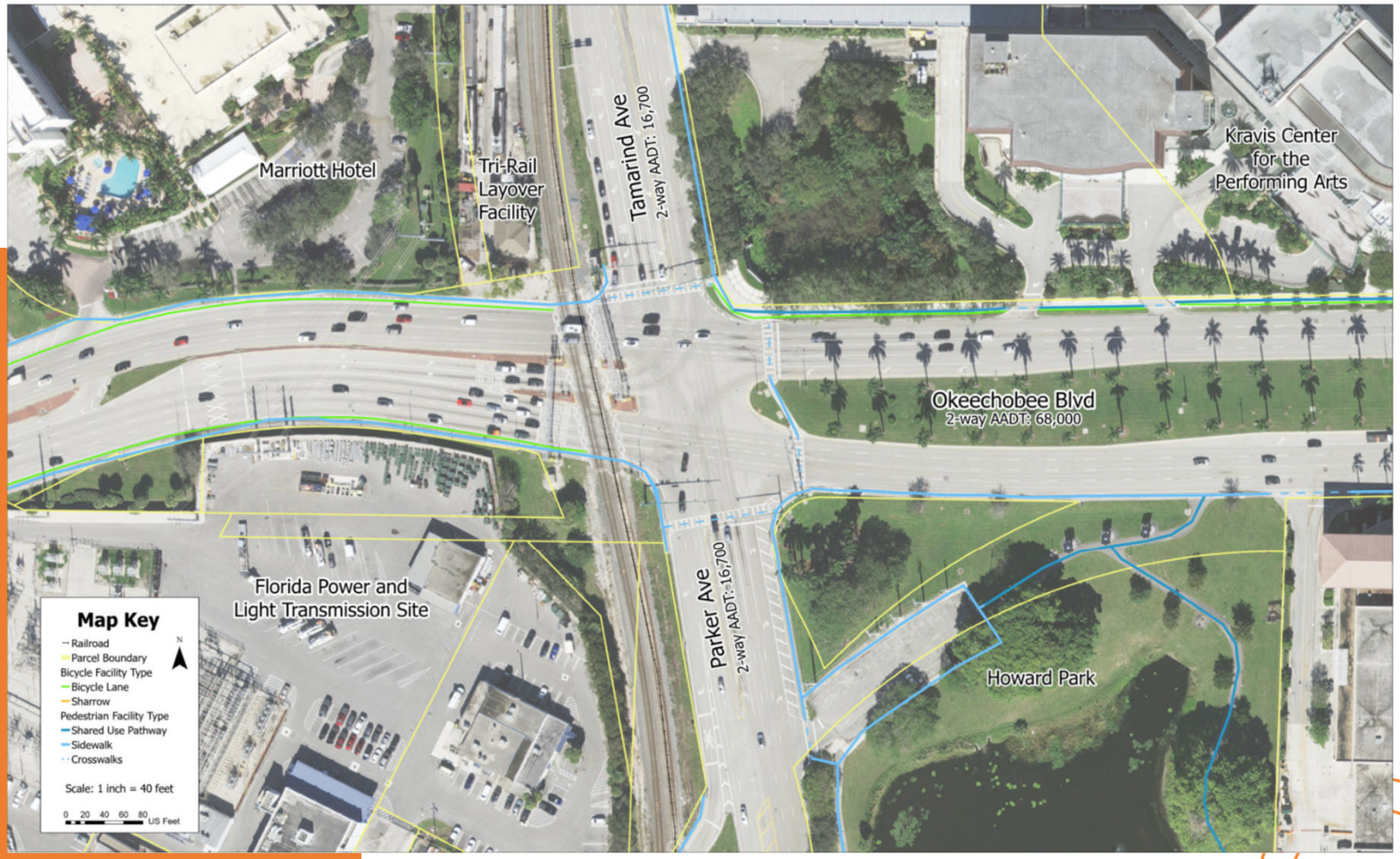
Wednesday, January 14, 2025	
Time	Activity
9:00 a.m.	Overview of the Day and Case Study
9:30 a.m.	Bicycle Safety Overview / Introduction
09:45 a.m.	Group Bicycle Ride
12:00 p.m.	Lunch Break
1:00 p.m.	Recap
1:30 p.m.	Presentation 3 – Network Planning and Design
2:15 p.m.	Break out 3
3:30 p.m	Recap of Breakout
4:15 p.m.	End of Day 2

Thursday, January 15, 2025	
Time	Activity
8:45 a.m.	Meet at the Workshop Location
9:00 a.m.	Work on Final Presentations
10:15 a.m.	Final Presentations
11:00 a.m.	Conclusions and Next Steps
12:00 p.m.	End of Program

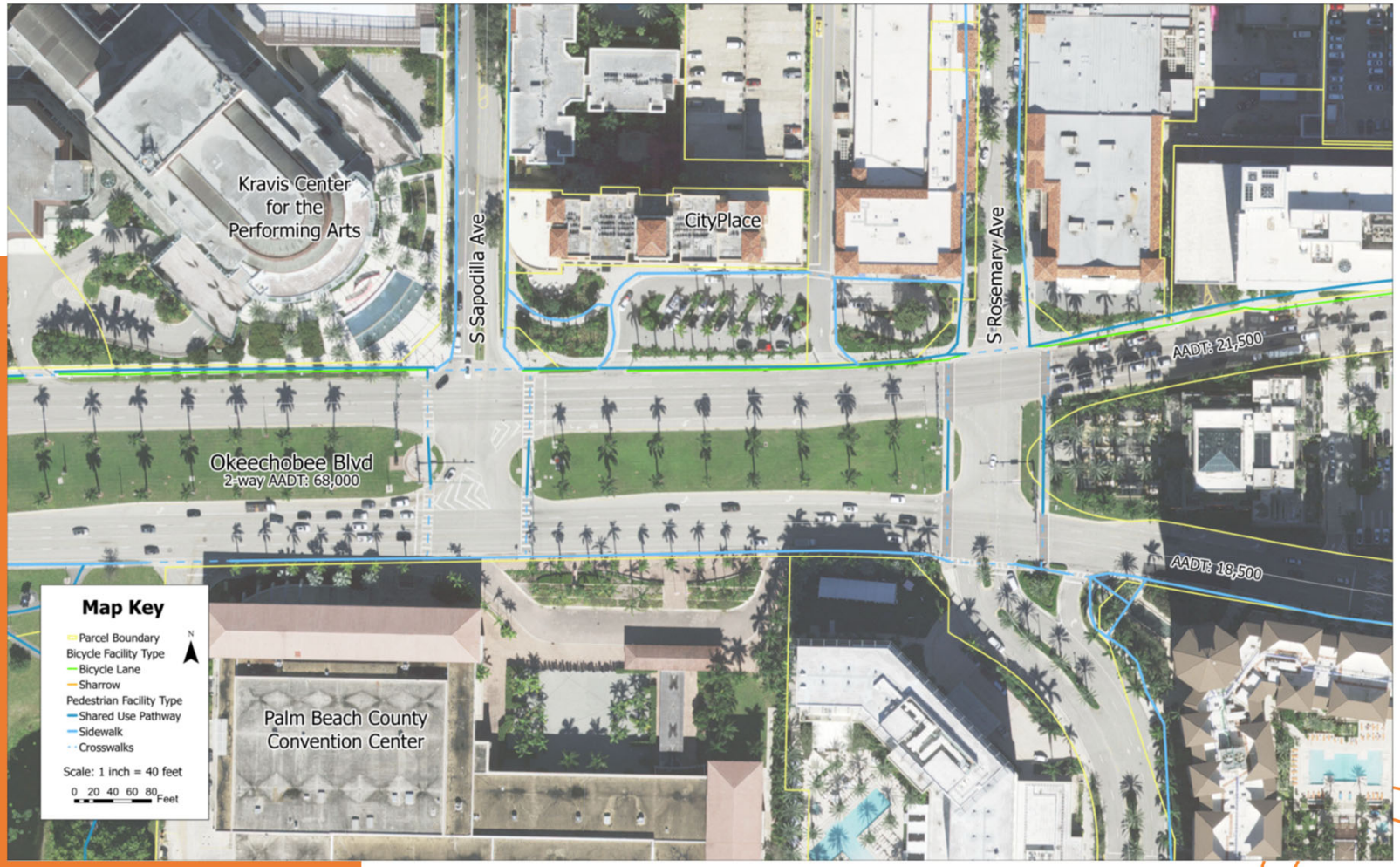
Network Map - Downtown West Palm Beach



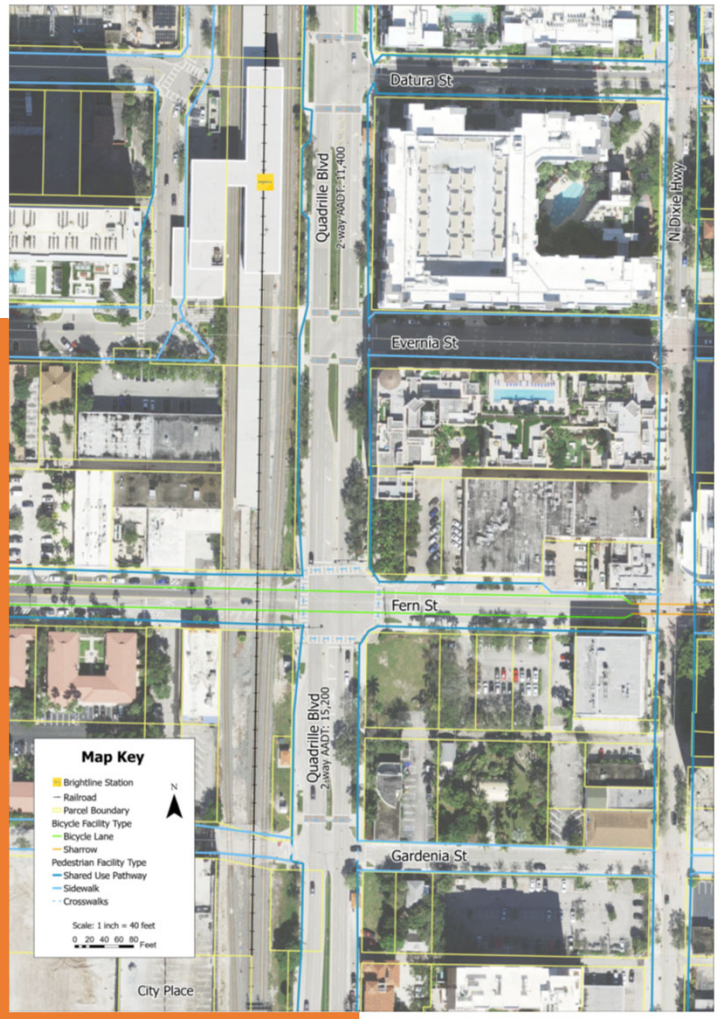
Scenario 1: Okeechobee Boulevard at Tamarind Avenue



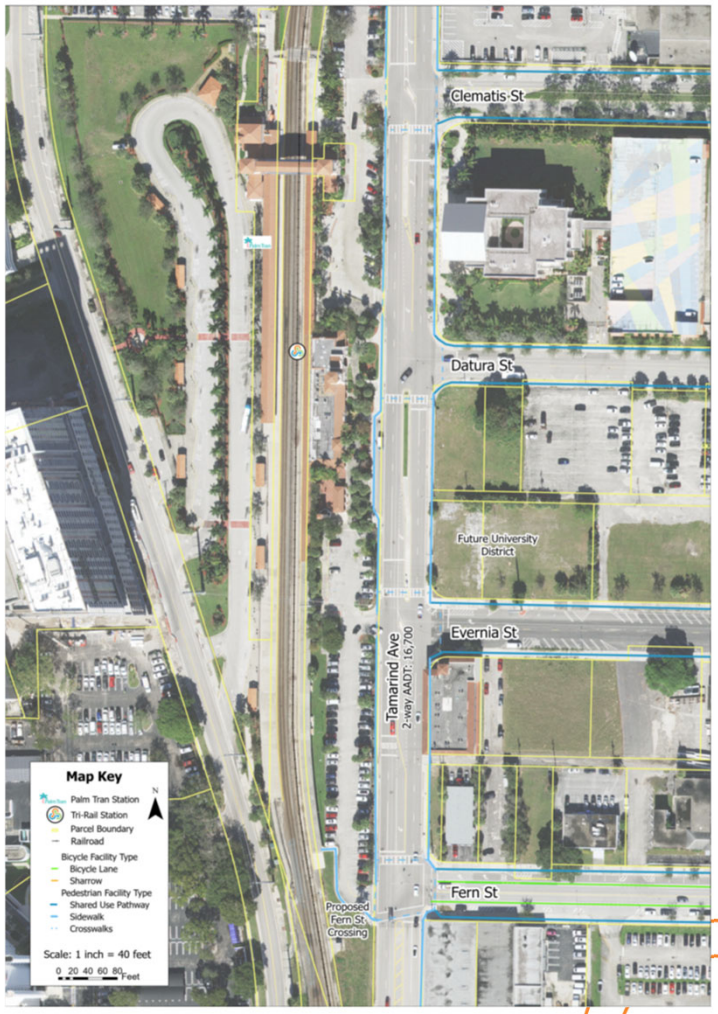
Scenario 2: Okeechobee Boulevard Corridor



Scenario 3: Quadrille Boulevard Corridor



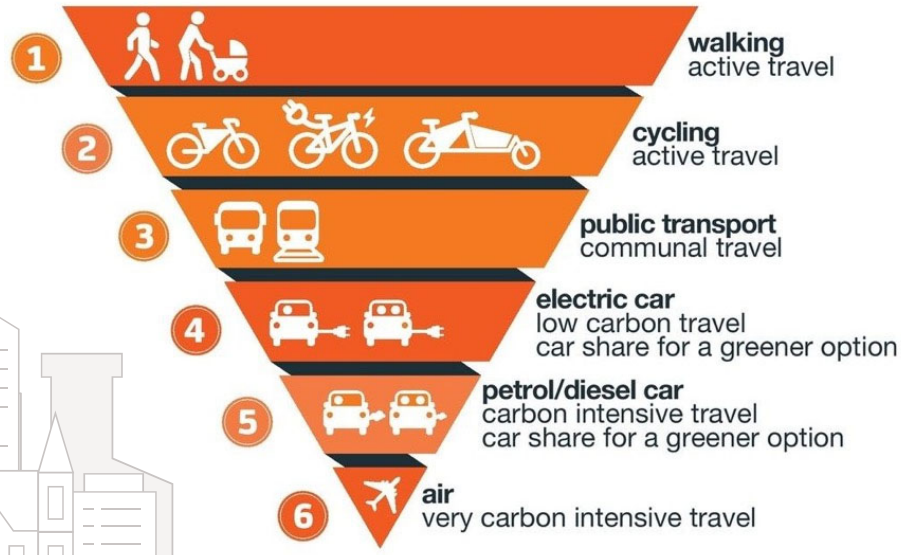
Scenario 4: Tamarind Avenue Multimodal Hub



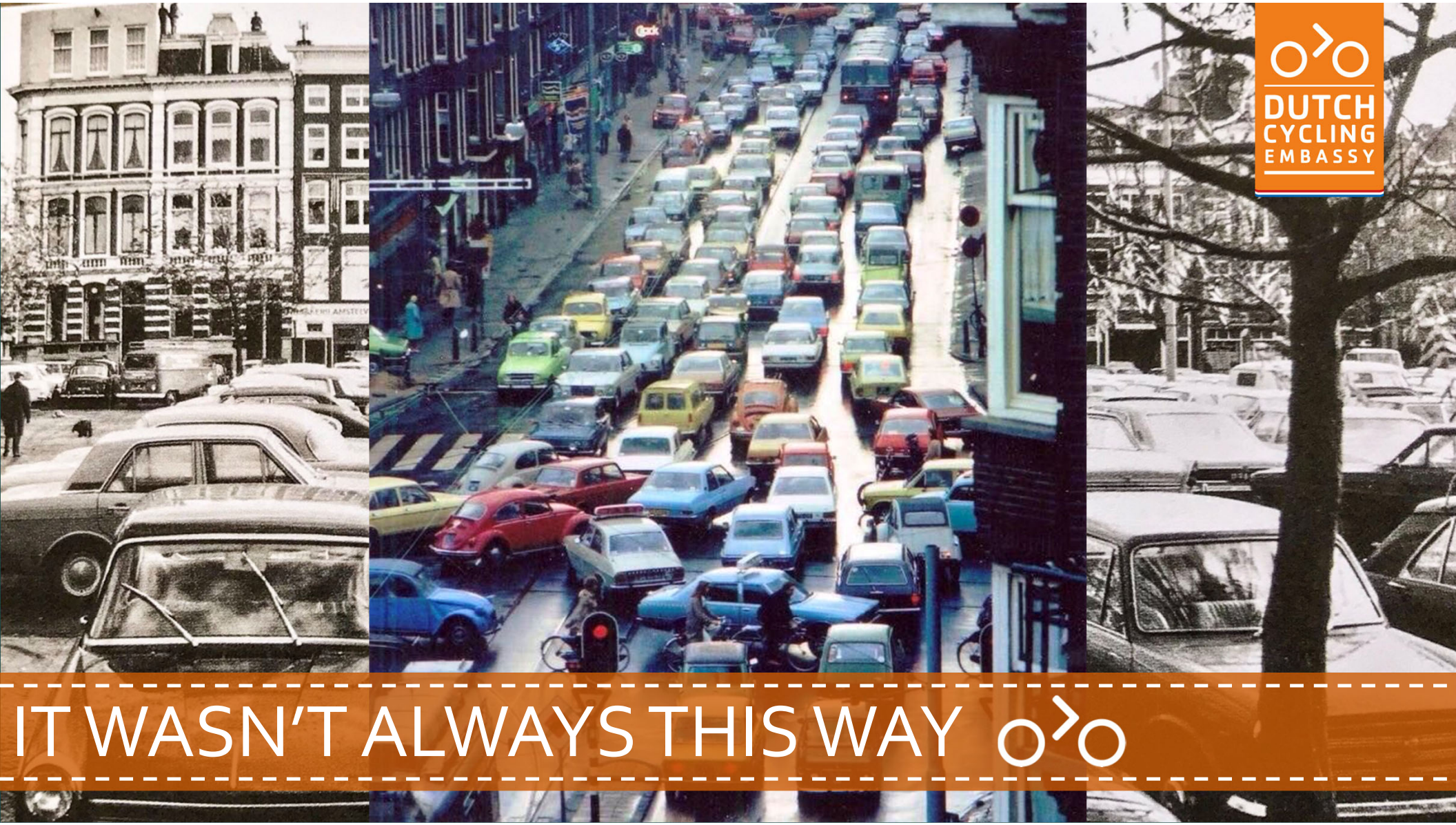
DUTCH CYCLING EMBASSY

From Car-Obligatory to Car-Optional

- Child-Friendliness
- Social Connectivity
- Social Cohesion
- Gender Equity
- Noise Pollution
- Mental Health
- Accessibility
- Economic Prosperity
- Urban Resilience
- Age-Friendliness



THE VIEW FROM 'FIETSPARADIJS'



IT WASN'T ALWAYS THIS WAY

Crisis as a Turning Point

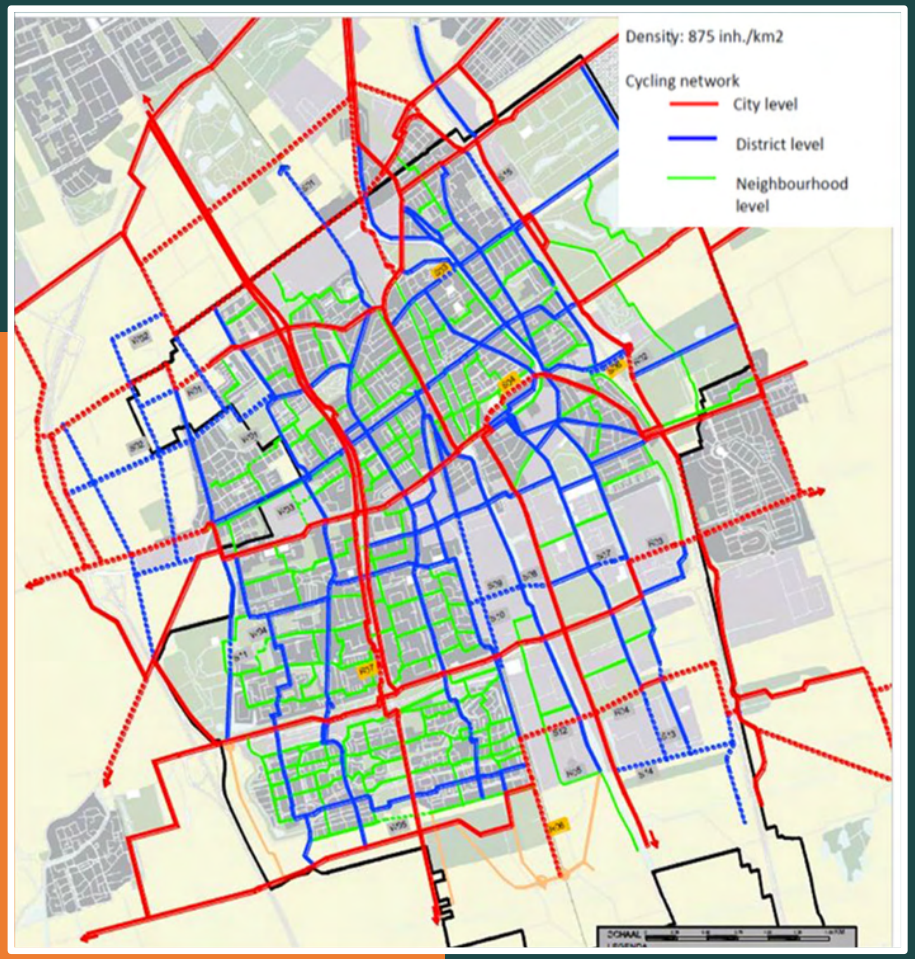
DUTCH CYCLING EMBASSY

- In the Netherlands, a pair of converging crises in the 1970s created a systematic approach to safer, more sustainable, equitable, and efficient street design
- In 1972, Stop de Kindermoord ("Stop Child Murder") formed in reaction to a road safety crisis that was killing 3,000 people per year, including 450 children
- For six weeks in 1973, the OPEC oil embargo resulted in an abrupt gasoline shortage and 'Car Free Sundays' policy, doubling the sales of bicycles

Learning From Their Mistakes

DUTCH CYCLING EMBASSY

- High-profile failure of demonstration route in Tilburg in 1977: inconsistent design; inconvenient route selection which relegated cyclists to back streets
- Second demonstration route failure in The Hague in 1978: lack of connectivity and consultation led to low usage; huge backlash with local business owners
- The lessons learned from these two failed experiments were applied to the highly successful 1979 Delft Cycle Plan

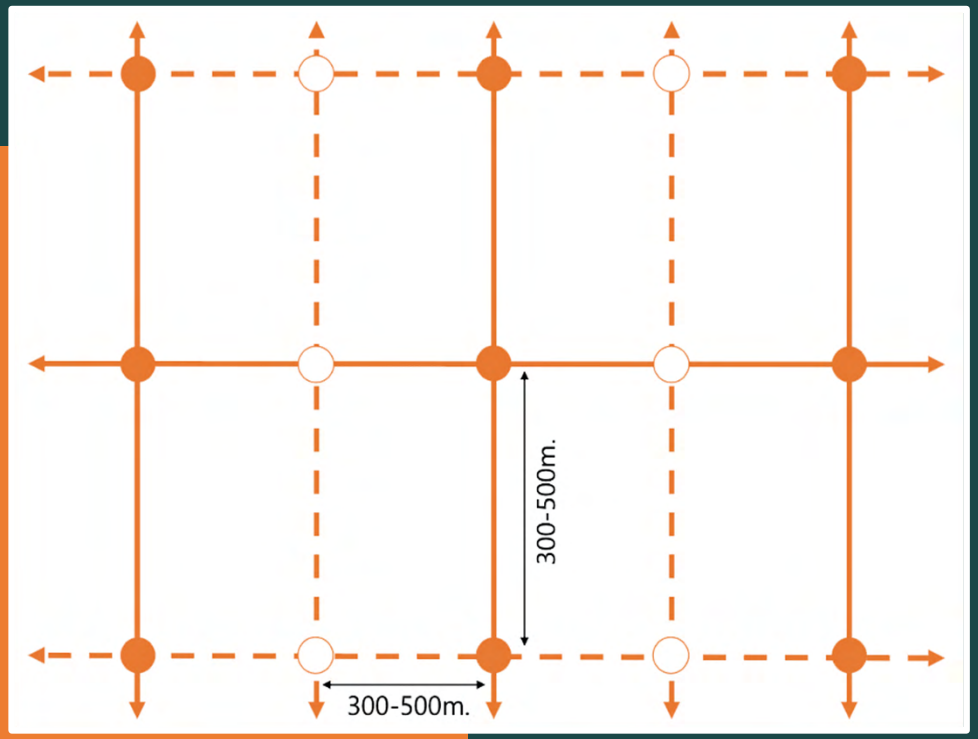


Think at the Network Level

DUTCH CYCLING EMBASSY

- Rather than focusing on a single route, in 1979, Delft officials decided to implement a city-wide cycle network
- After consulting with 4,700 households, three networks (of varying grid sizes) were planned; each with a specific journey type, length, and user in mind
- Completed in 1987; lessons learned inform the CROW Manual network design principles of directness, safety, comfort, cohesion, and attractiveness

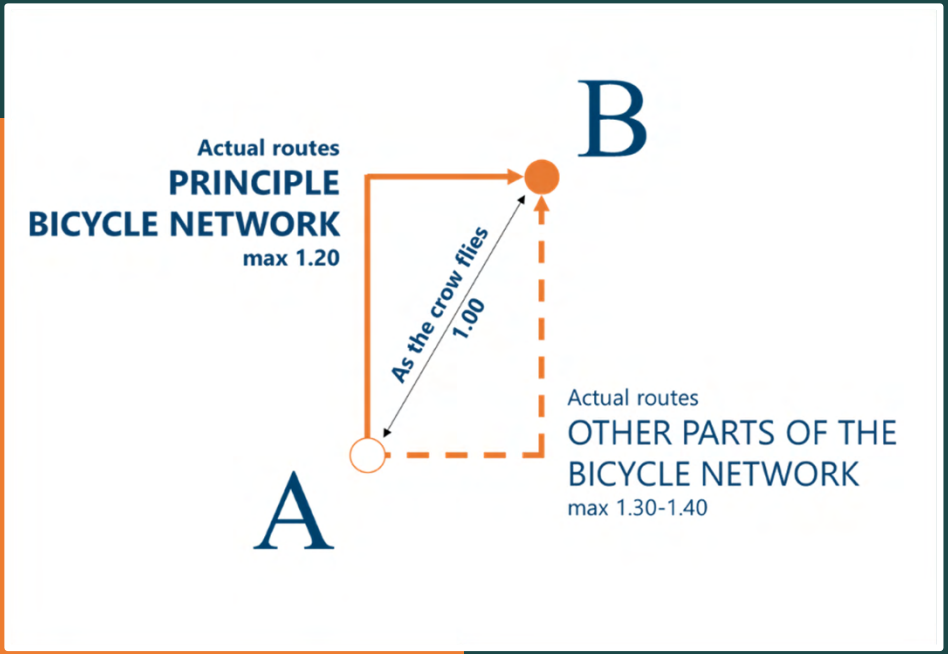
#1: Cohesion



Source: DTV Capacity Building

- Refers to the idea that cycling infrastructure should be designed to create a seamless, interconnected system of high-quality routes that allow cyclists to travel from any origin to every destination in and between cities
- The goal is to ensure that different parts of the network "fit together" smoothly, so it is not just a collection of disconnected corridors, but a unified, well-integrated system that is only as good as its weakest link

#2: Directness



Source: DTV Capacity Building

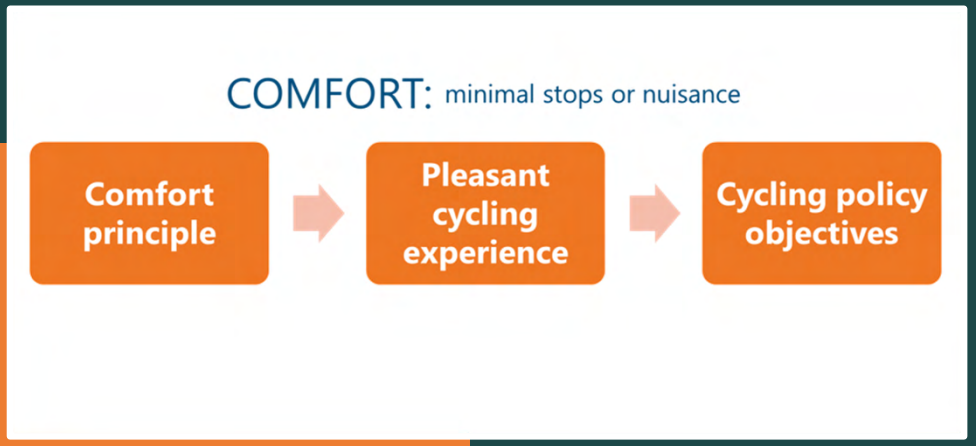
- Ensures that cycling is a competitive mode of transport in terms of speed and convenience compared to driving a motor vehicle. This means always offering the shortest route possible, with deviations not to exceed 20 percent of the total travel distance
- Cyclists often get priority at intersections to reduce waiting times, and busier roads often have overpasses or underpasses, so that cyclists rarely have to put a foot on the ground

Source: DTV Capacity Building

#3: Safety

- Aims to create an environment where cycling is inherently safe by minimizing conflicts between road users and reducing the severity of collisions
- Differences in speed and mass are avoided, and where they can't be reduced by design, traffic types must be separated
- This extends to the junction, where protected intersections, roundabouts, and continuous paths improve feelings of safety by keeping cyclists in a raised, prioritized, and visible position

#4: Comfort



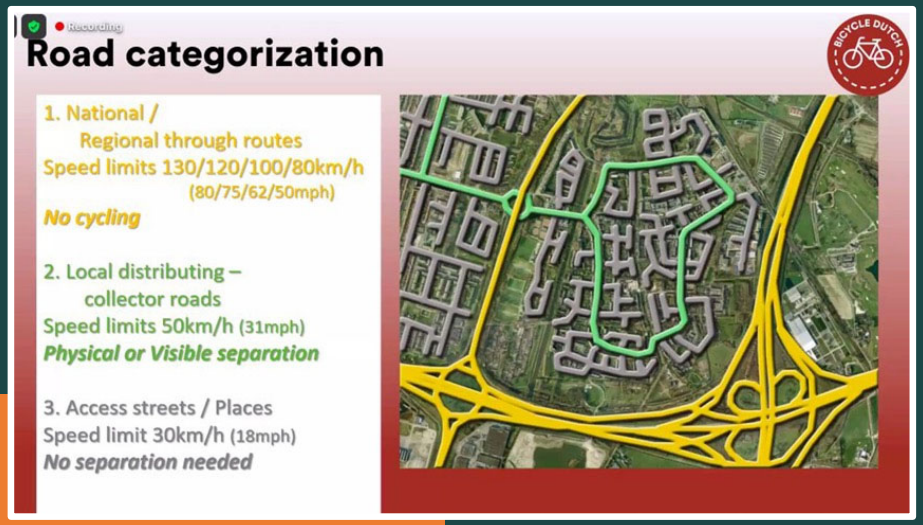
Source: DTV Capacity Building

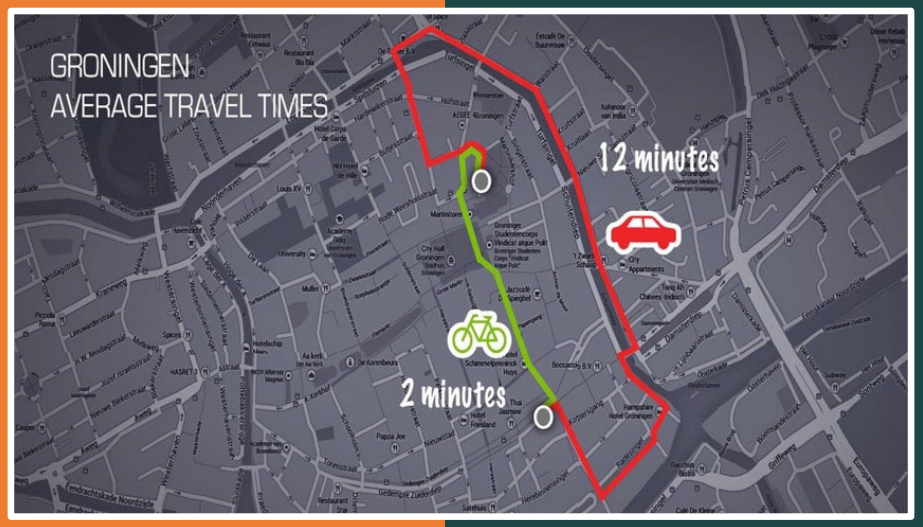
- Ensures cycling is a pleasant and stress-free experience, attracting a broad range of users, from children and the elderly to commuters and tourists
- It looks beyond safety to ensure cyclists experience minimal nuisance, by including many design elements such as smooth and well-maintained surfaces, gentle slopes and minimal stops, wide and spacious paths, protection from the elements, and low-stress interactions

#5: Attractiveness

Source: DTV Capacity Building

- Employs beauty—such as art, lighting, nature—to create a user experience that entices people onto a bike
- This means choosing routes that are integrated with natural, well-lit, vibrant spaces, and avoiding routes in industrial, dark, and deserted ones
- By creating corridors that engage the senses, with a high degree of variety and interest along the way, cycling becomes not just a practical choice but also a pleasurable one





Every Mobility Plan Needs a Car Plan

DUTCH CYCLING EMBASSY

- Effective traffic circulation—ie. reducing the volume and access of motor vehicles—can form an easy and effective part of a city's cycling network
- Dutch cities create a "hierarchy of roads"—differentiating between local and through traffic—diverting cars from economic and residential areas
- Such measures improve the safety and comfort of local access roads, and make walking and cycling time competitive

Design for the Behaviour You Want

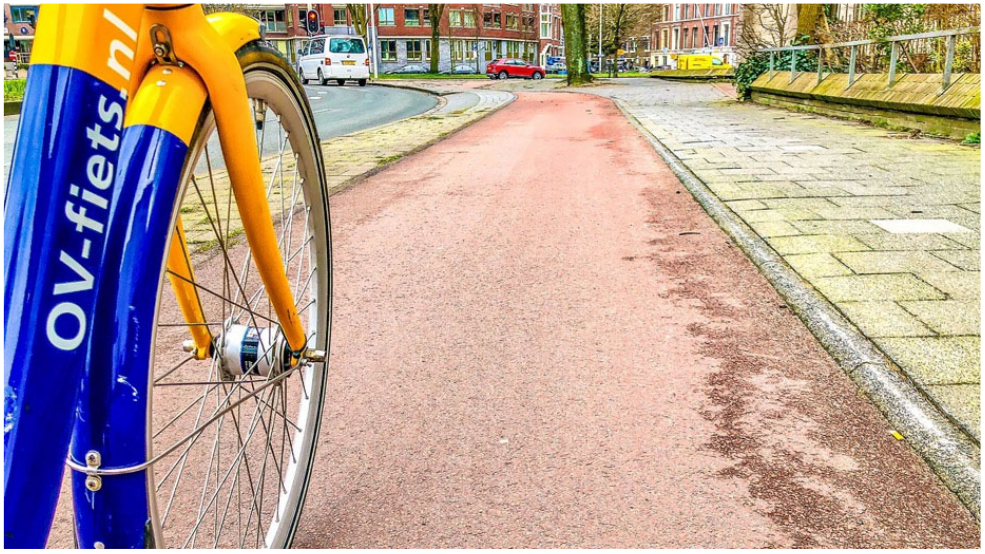
DUTCH CYCLING EMBASSY

- Road users can best be forced to travel at lower speeds through engineering
- Drivers will travel at whatever speed they feel comfortable, and police can't enforce posted speed limit everywhere
- Physical methods are used to slow motorists down such as road narrowing, chicanes (staggered build-outs), texture (such as brick), and speed tables; if speeding still exists, the street is sent back to the drawing board

Use Bikes to Feed Public Transport

DUTCH CYCLING EMBASSY

- Half of all train journeys in the Netherlands begin with a bike ride to the station (750,000 trips per day)
- Nearly a quarter all kilometers cycled in Dutch cities are to or from a station
- 20% of Dutch people live within one kilometer and 80% live within five kilometers of at least one station
- 21% of bike-train trips replace car trips; 66% of bike-train users have access to a car but prefer not to use it


OV-fiets.nl

Electromobility as a Range Extender

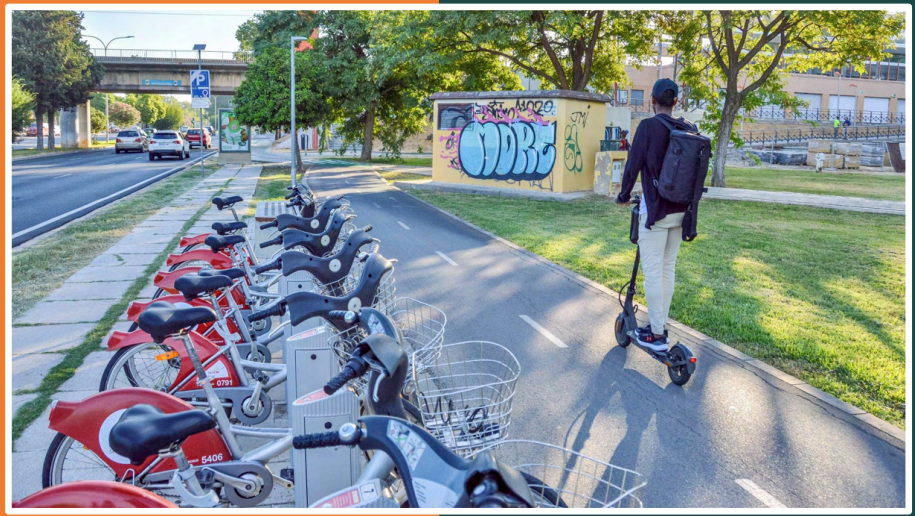
DUTCH CYCLING EMBASSY

- E-bike users travel 64% further than ‘normal’ bike users; average e-bike trip journey length 5.9 km (versus 3.6 km)
- From 2010 to 2022, e-bikes have helped Dutch seniors cycle 33% more total distance (averaging 6.8 km per trip)
- Women make 85% more e-bike trips than men (456 vs. 245 million per year)
- Teenagers living 10 to 20 kilometres from school are more likely to travel there by e-bike (26%) than a regular bike (15%)

A New Frontier For Dutch Cycling

DUTCH CYCLING EMBASSY

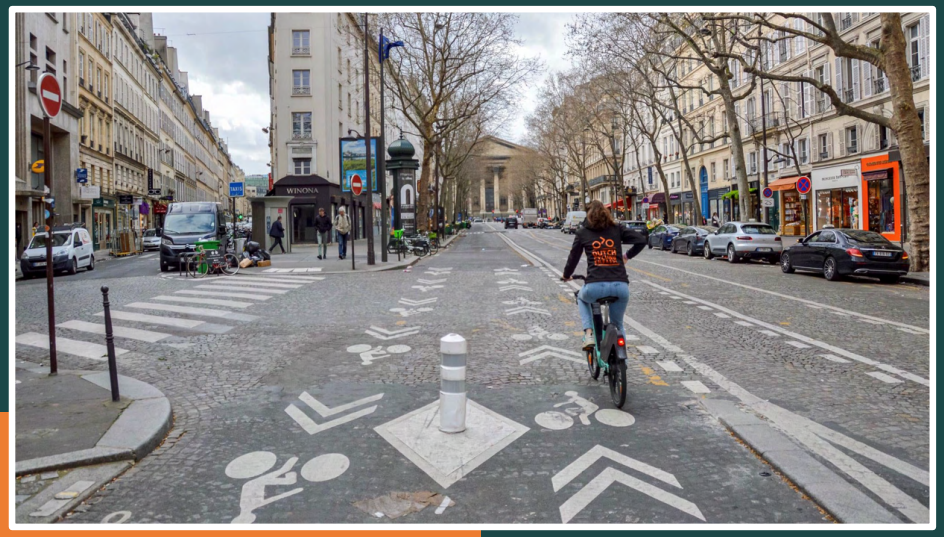
- Direct and comfortable cycling routes—in combination with the e-bike—can encourage people to cycle longer distances and reduce car congestion
- Provinces and regions across the Netherlands are connecting residential, commercial, and educational hubs with wide, smooth “continuous cycling routes”
- Specifically designed to cater to journeys of 5 to 15 km: cause the biggest traffic problems because they’re too short for the train and too long for the bus/bike



Creating a Culture of Cycling in Seville

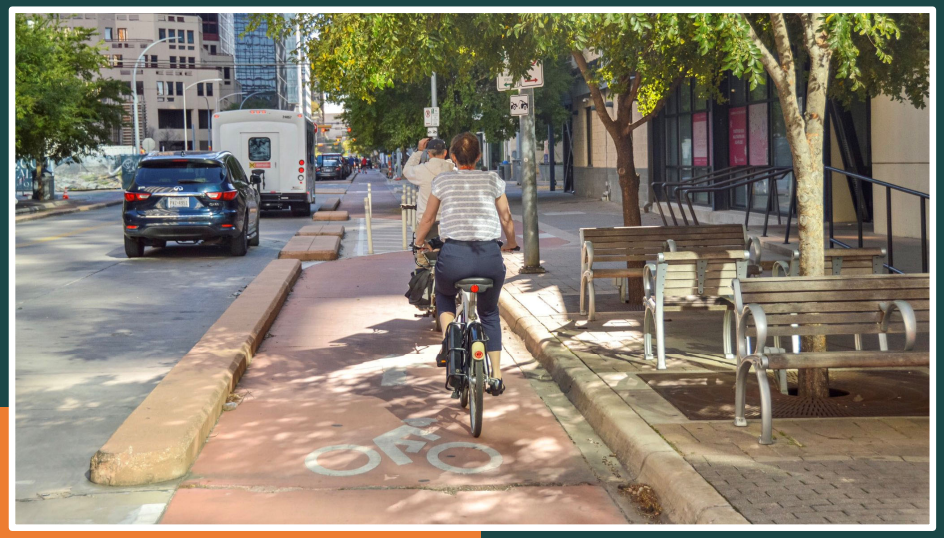
DUTCH CYCLING EMBASSY

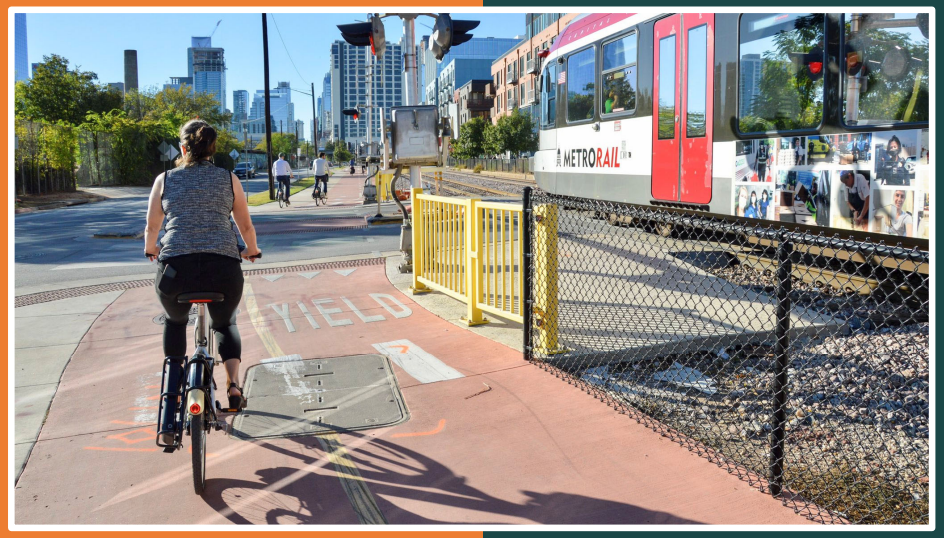
- From 2006 to 2008, Seville went from 15 to 120 km of protected bike lanes, and from a 0.5 to 6% modal share—a 12 increase virtually overnight
- To combat 40°C+ summers, bike lanes and shade trees are combined to discernible effect; reducing the temperature at street level
- The biggest takeaway: bike routes must be treated as a series of connections—like roads or rails—designed for directness, cohesion, safety, comfort and attractiveness



Paris' Cycling Revolution

- When the COVID-19 pandemic hit, Paris quickly built 52 kilometers of coronapistes ("corona tracks") to keep its residents healthy and streets moving
- A user survey found 60% of people using this infrastructure were new cyclists, and the proportion of women increased 14%
- With 62% public support, wt will now invest €250 million to make those pop-up lanes permanent, add another 130 kilometers, and build 130,000 parking spaces by 2026





Capturing Short Car Trips in Austin, Texas

DUTCH CYCLING EMBASSY

- Since 2011, Austin has built 380 km of AAA ("all ages and abilities") bikeways and 16 protected intersections across the city
- Their goal is 650 km of red-tinted, Dutch-inspired infrastructure by 2025, converting 15% of short car trips (less than 5 km)—now half of all journeys—to bicycle
- Funded by active travel bonds $127 million approved by 59% of voters in 2016, and $460 million approved by 67% in 2020

WHAT KIND OF FUTURE DO WE WANT?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