

# Amsterdam A10

Case Study Lelylaan, 29 June 2016



1. To **connect the city** on both sides of the ring road in all aspects (socially, spatially, in quality)
2. To make the **ring a quality destination** that adds to the brand of Amsterdam
3. **Redirect demand** from the older part of the city to the A10 (mobility, energy, housing and other functions)
4. Create a flexible model that can **accommodate an ever-changing urban future**

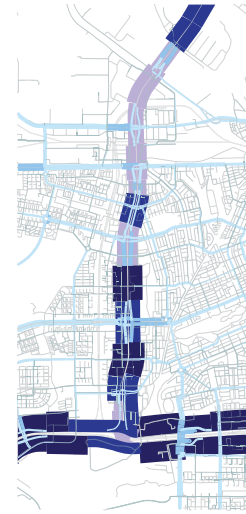
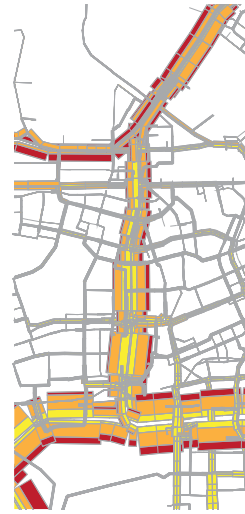
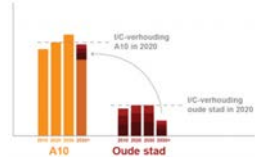
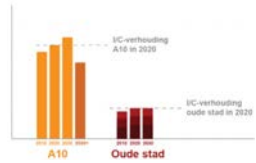
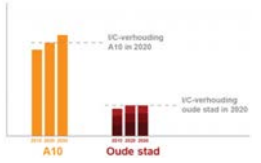
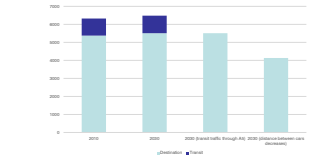
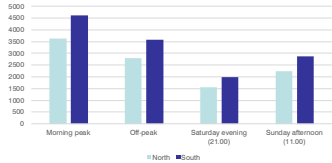
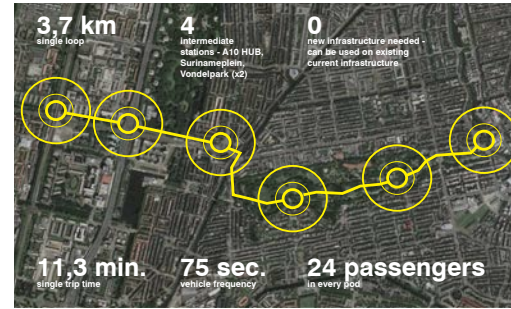
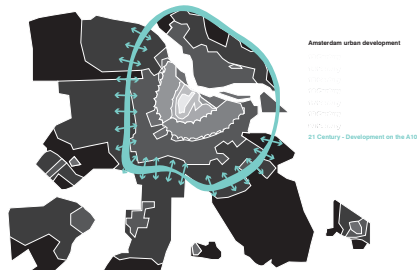




1. **Retain existing** infrastructure (not bigger, but smarter)
2. **Increase** capacity of A10
3. Incorporate **existing plans** in a coherent way
4. Realize a good share of the **90,000 apartments**
5. The proposal must be **realistic, profitable, and future** oriented



# Data Analysis



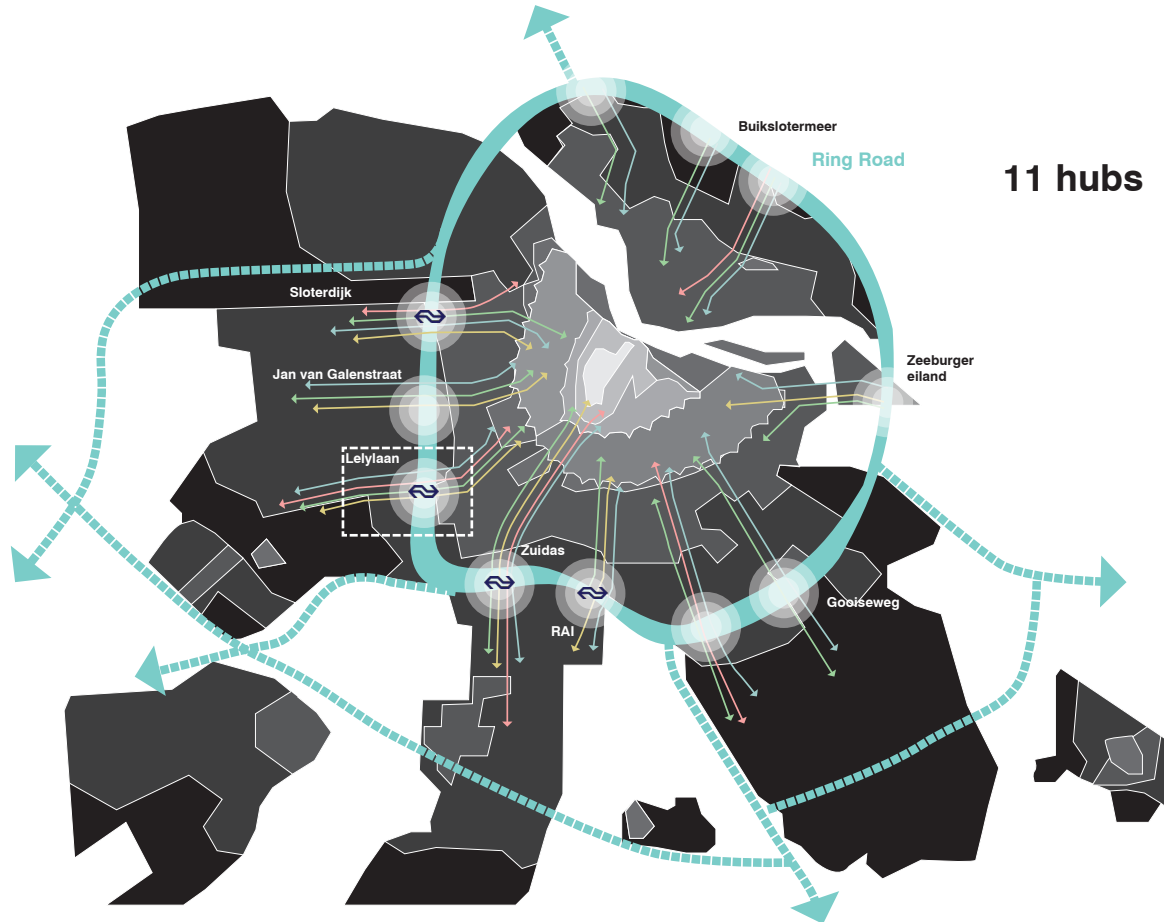


# The Hub, a New Typology

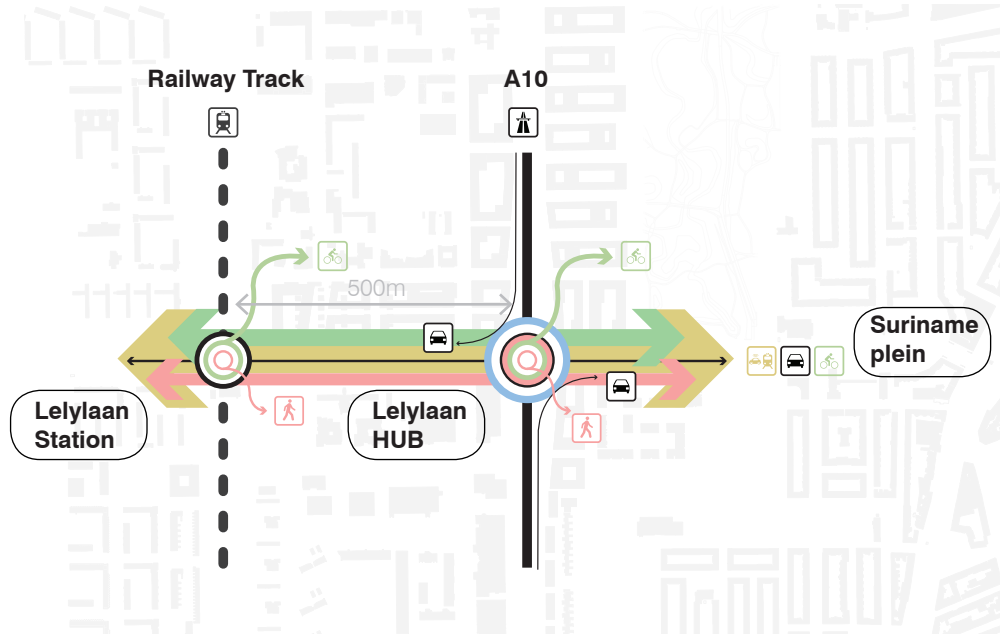
- Lelylaan/A10 node stays in the same height/location
- Continue urban fabric between east and west
- Introducing a new multimodal hub

# Exit Nodes are the New Multi-Modal Hubs of the Future

Nodes become a transition area from long distance travel to short distance travel



11 hubs



Lelylaan HUB will alleviate the stress of private transport in the inner city and will offer a connection to new modes of transport



Transfer from long distance...



...to short distance

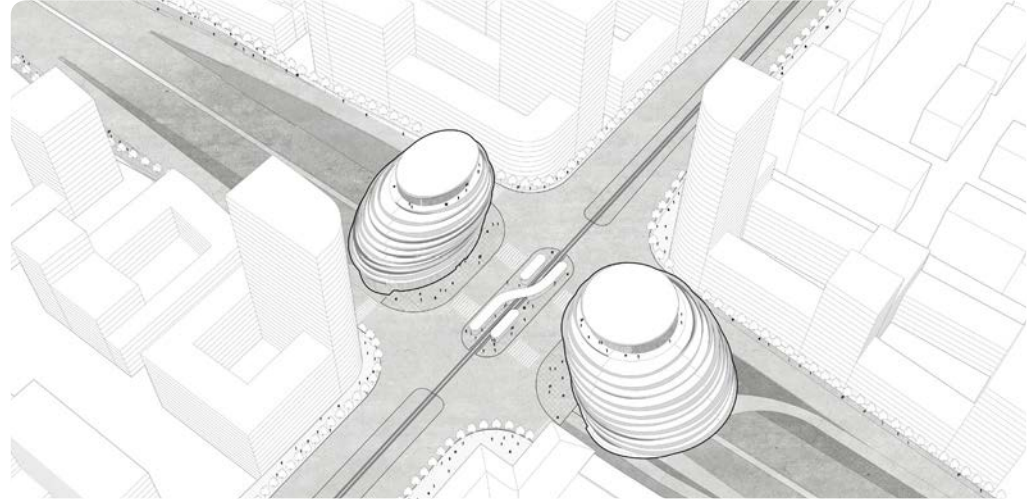
2getthere 3rd generation GRT



## Lelylaan Viaduct Existing Condition



Existing

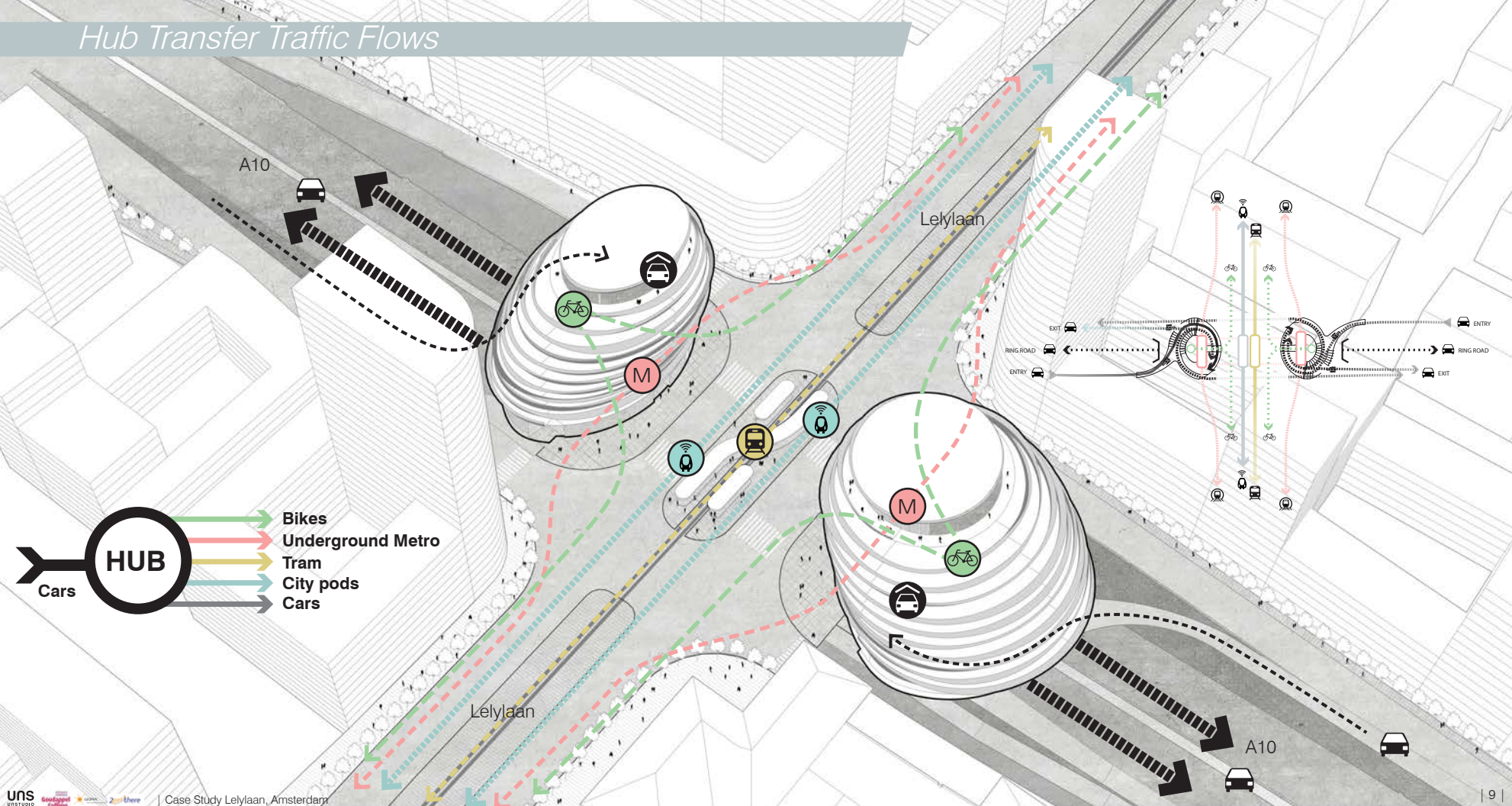


Proposal

- **Keep existing viaduct**
- **Close the hole**
- **Add two buildings**

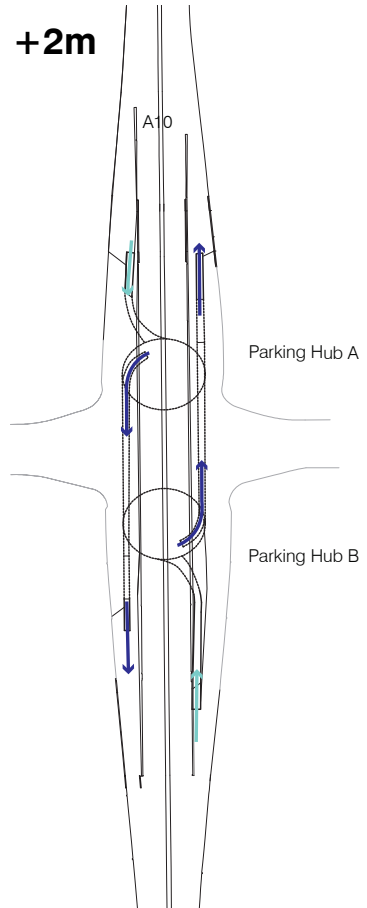


# Hub Transfer Traffic Flows

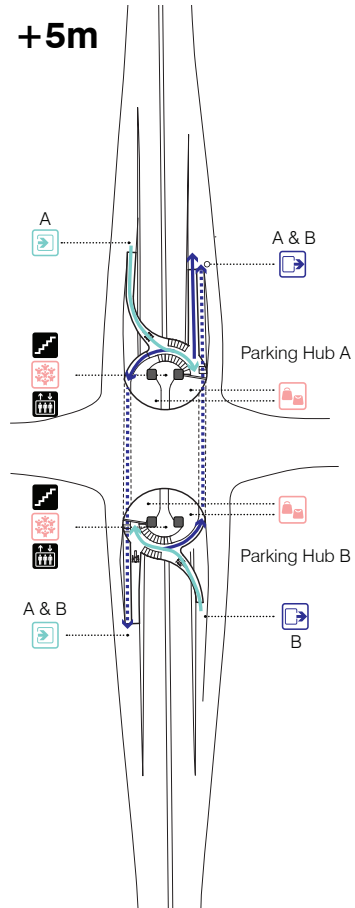


# Hubs, on Multiple Floors

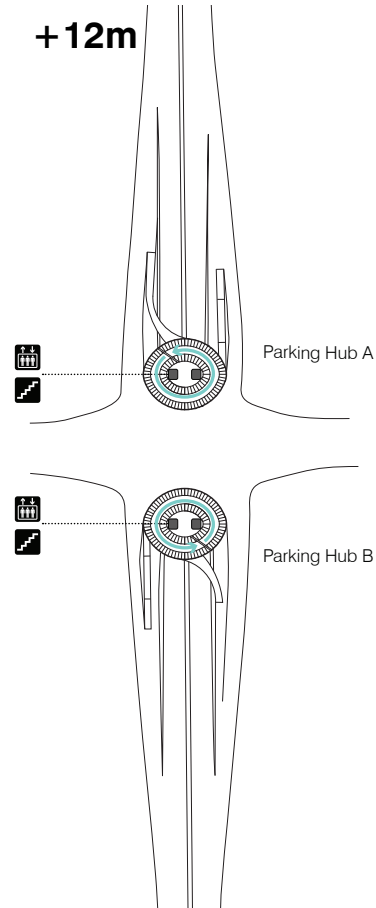
+2m



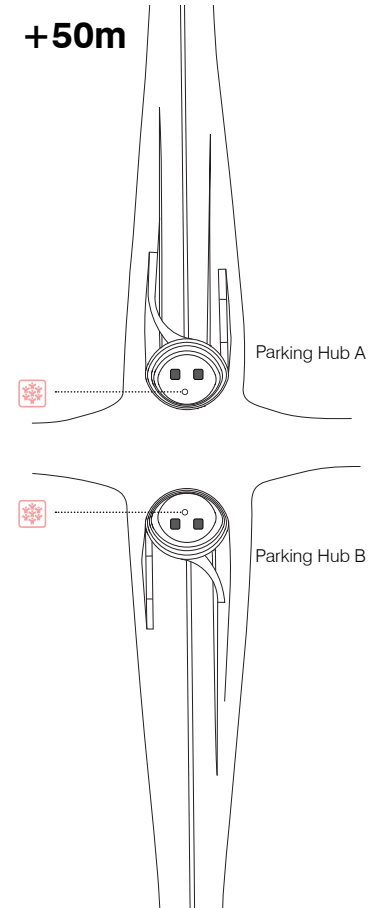
+5m



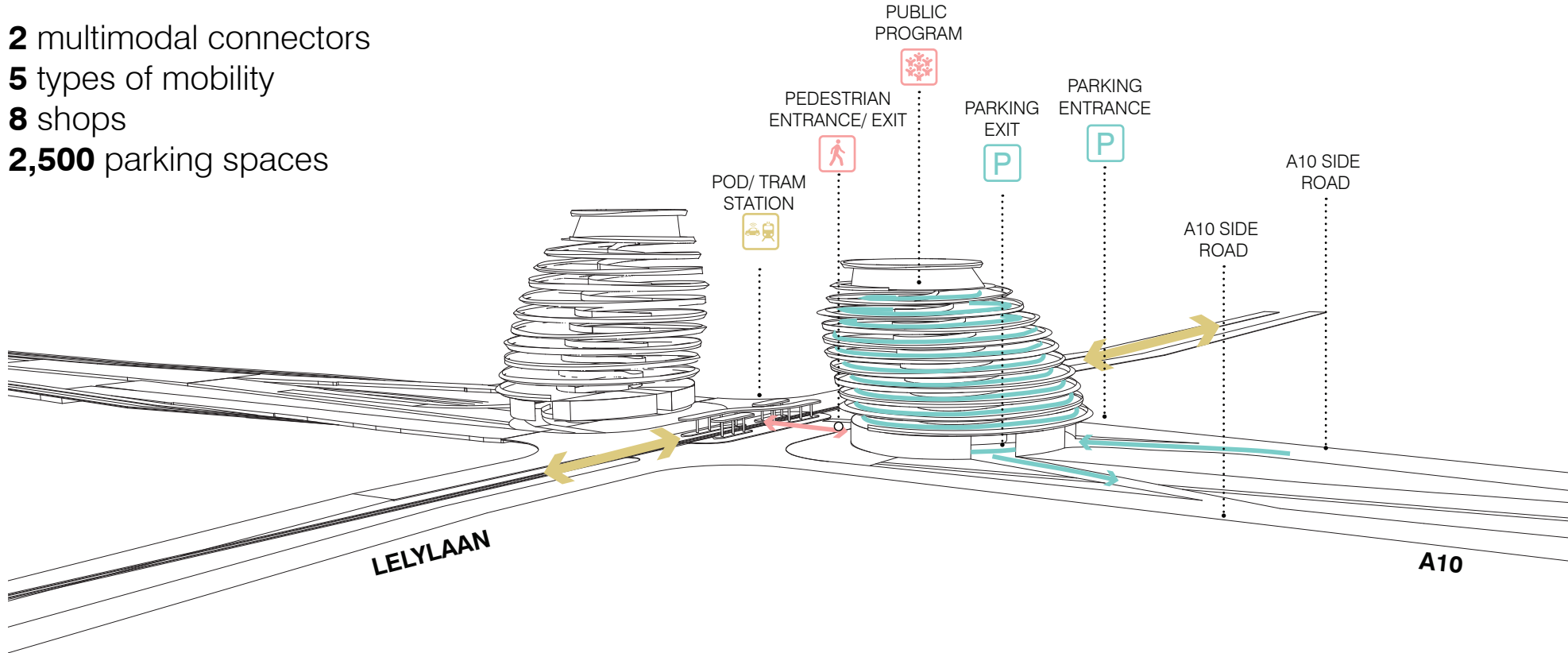
+12m



+50m



- 2 multimodal connectors
- 5 types of mobility
- 8 shops
- 2,500 parking spaces

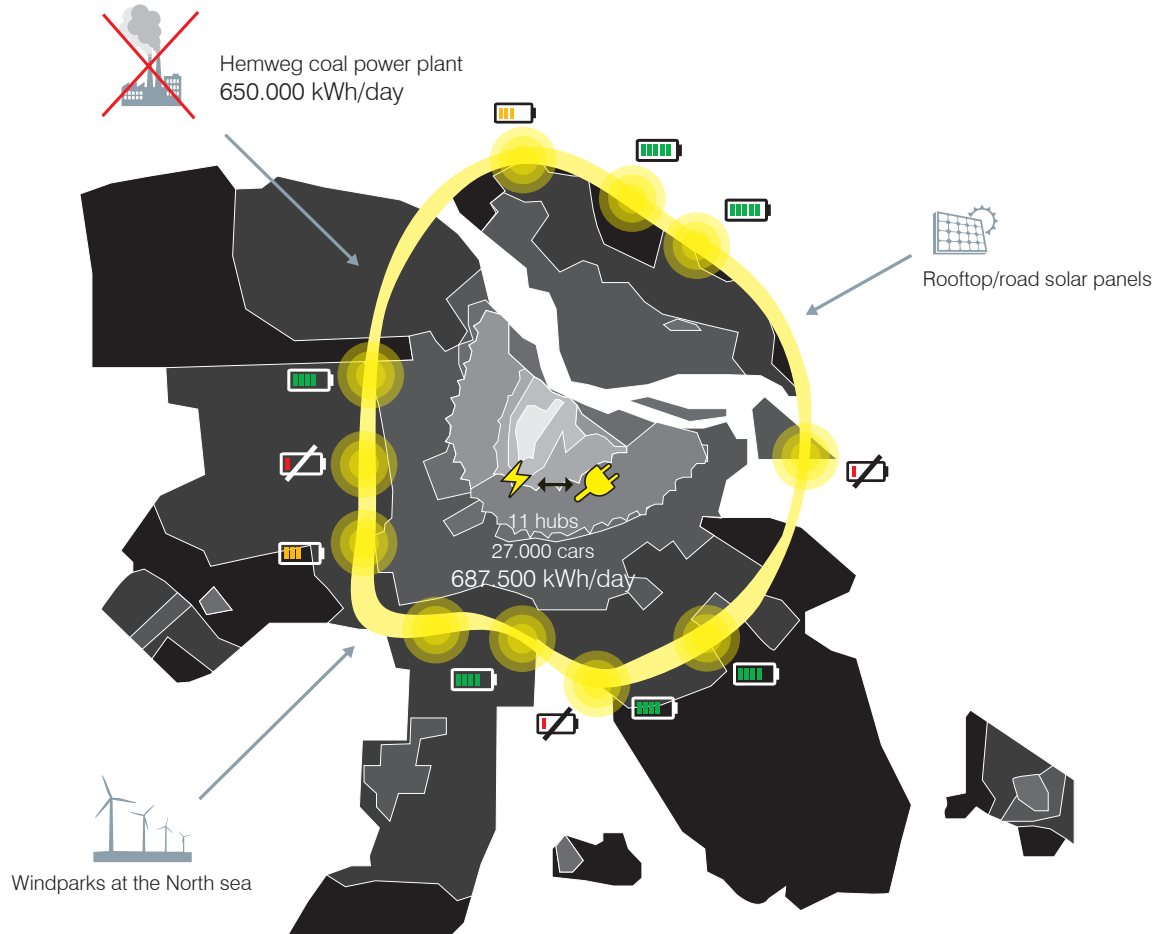
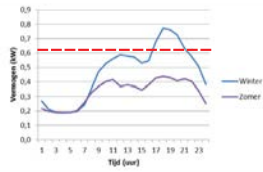




# Exit Nodes Become Power Plants



Use car batteries to cover the energy peak hours





# The A10, Transforms

- Make the road flexible
- Introducing new residential density on both sides of the road
- Adding a drop off zone to access buildings on A10 and create a new city street

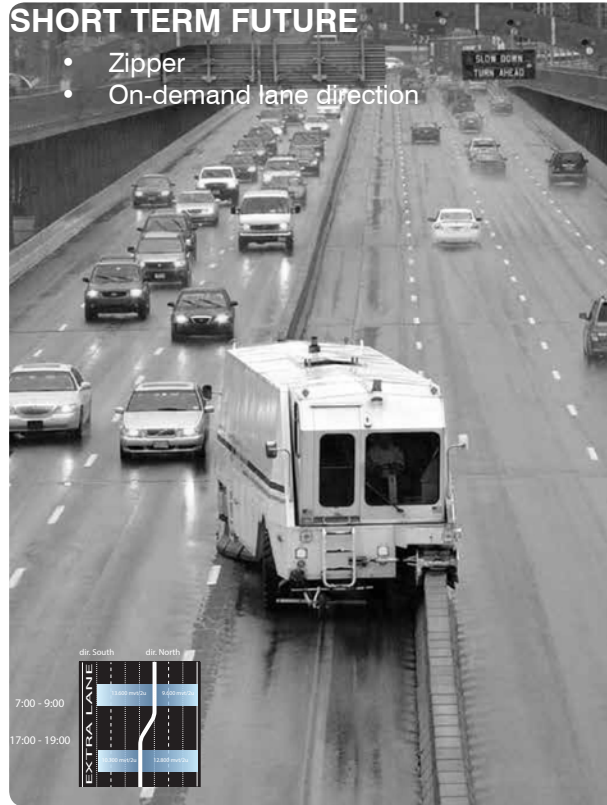
## CURRENT SITUATION

- No flexibility



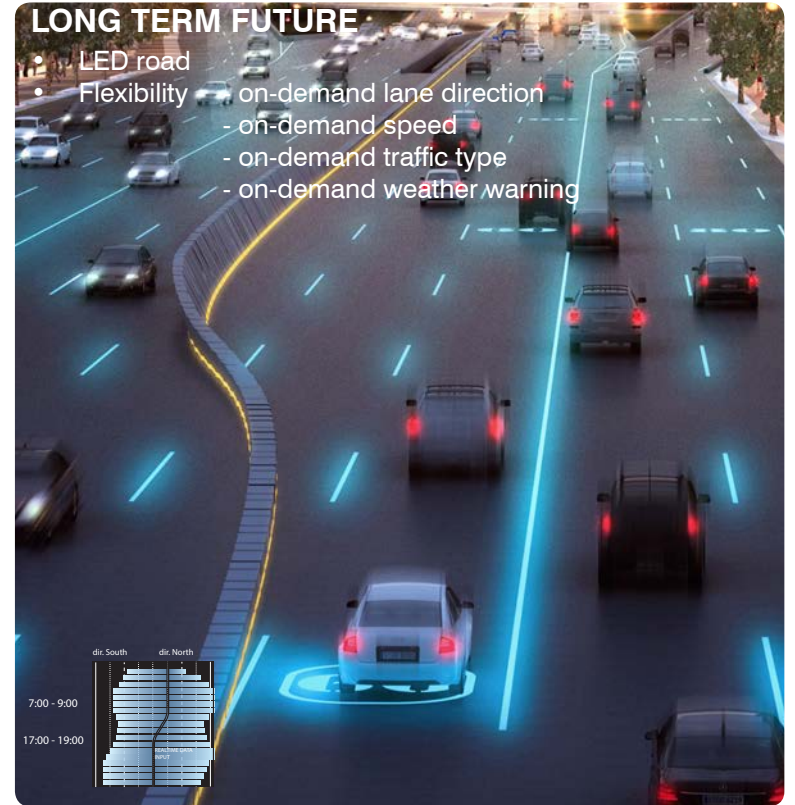
## SHORT TERM FUTURE

- Zipper
- On-demand lane direction



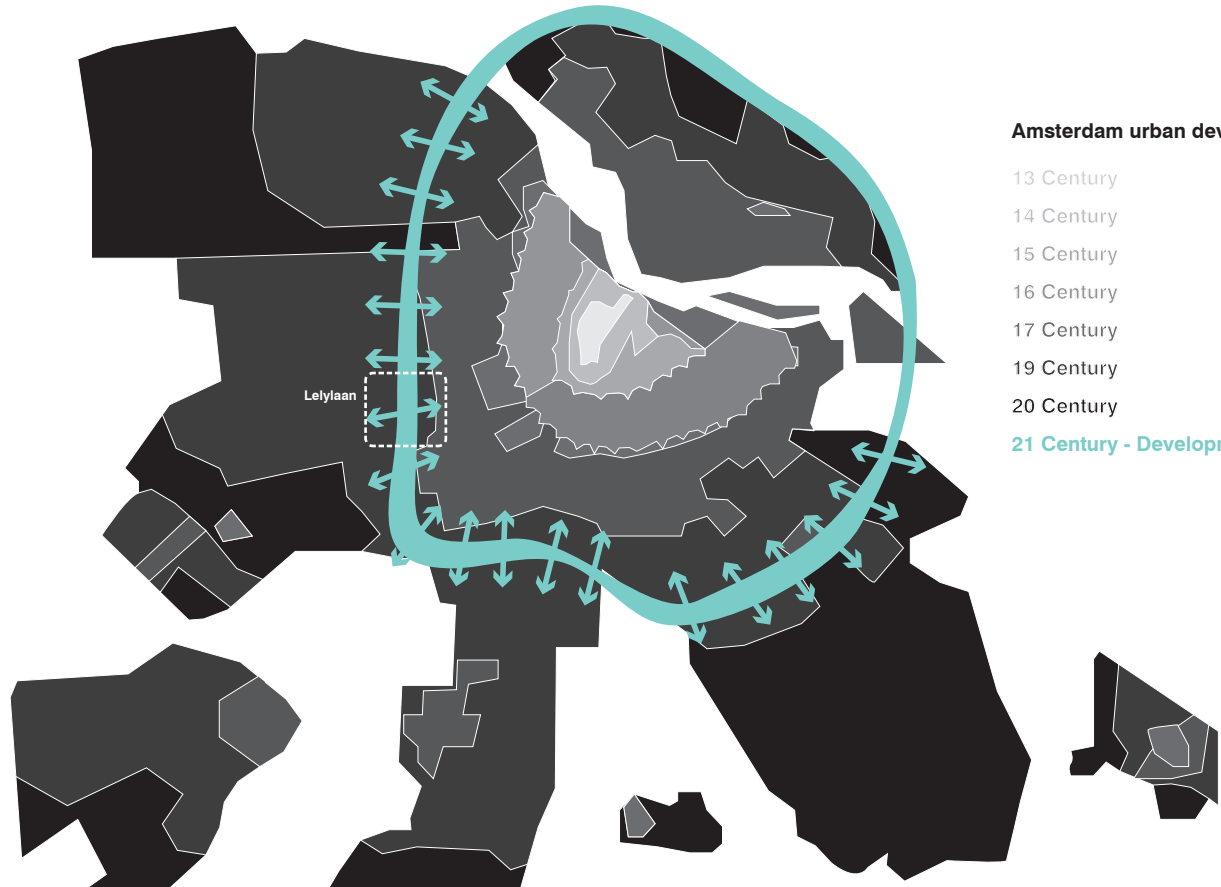
## LONG TERM FUTURE

- LED road
- Flexibility
  - on-demand lane direction
  - on-demand speed
  - on-demand traffic type
  - on-demand weather warning

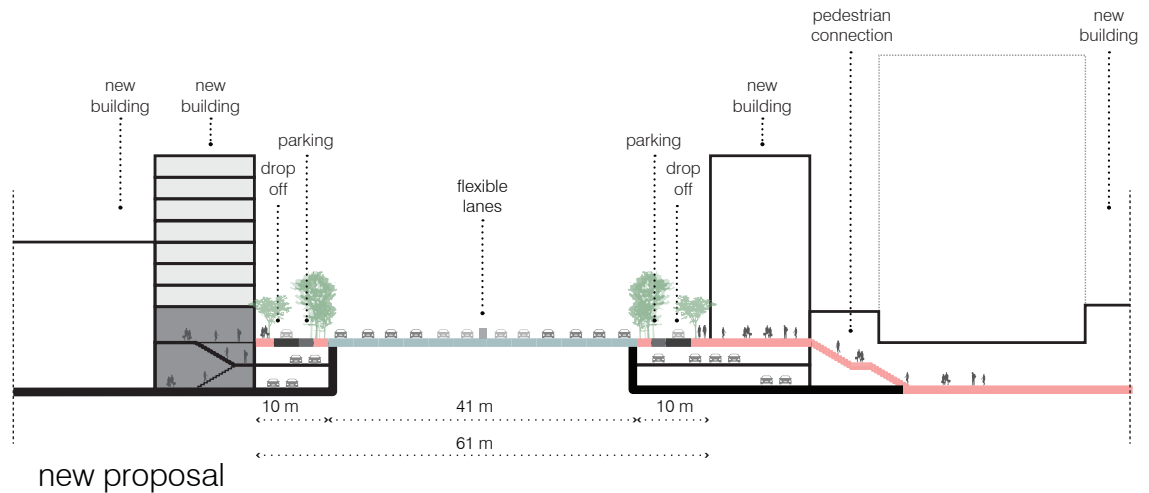
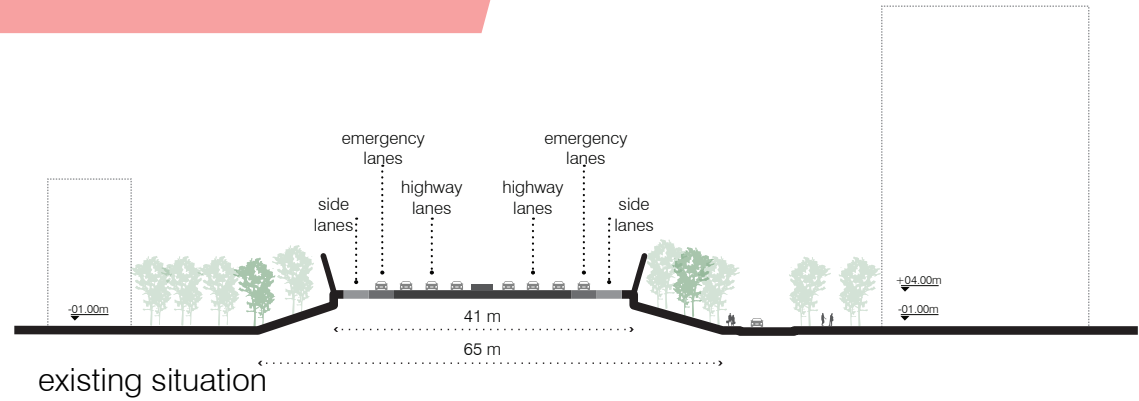


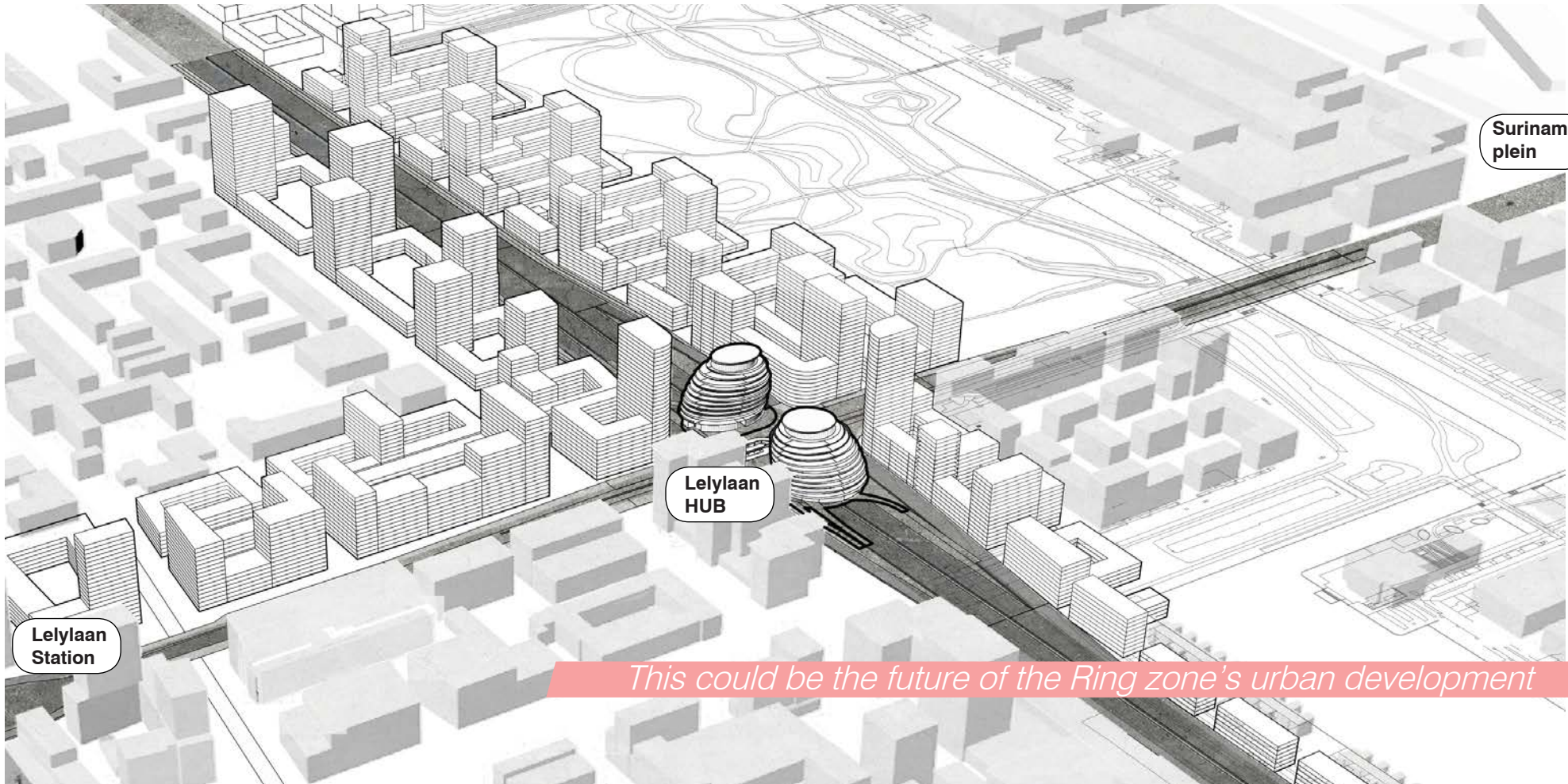


**Inner city development is favoured over suburban sprawl**



# A New City Street Profile





Lelylaan  
Station

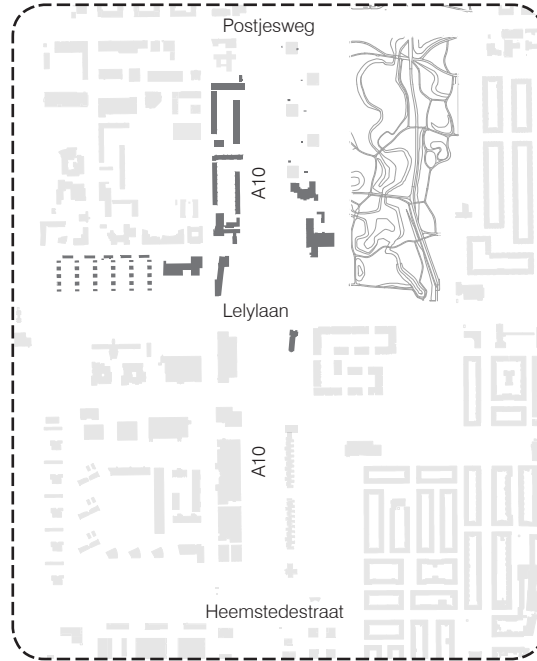
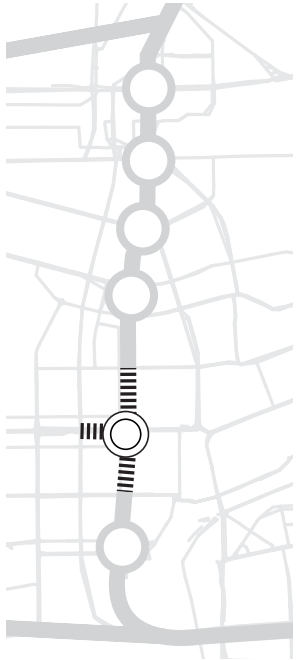
Lelylaan  
HUB

Suriname  
plein

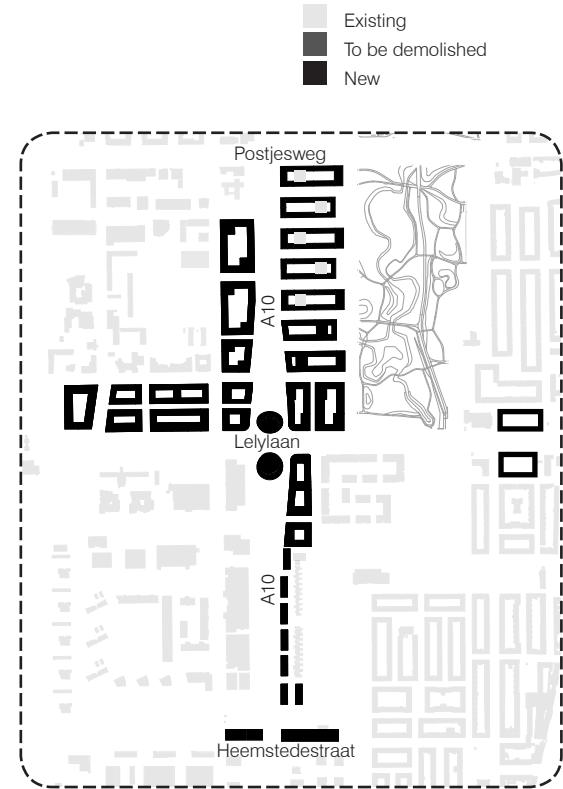
*This could be the future of the Ring zone's urban development*



# Building Next to the Highway

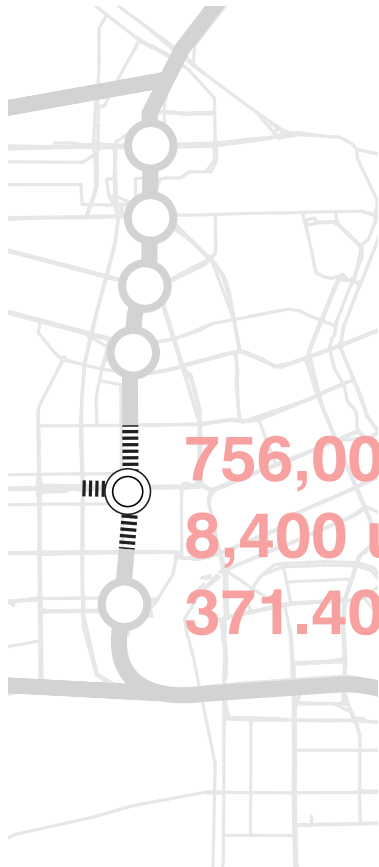


Existing

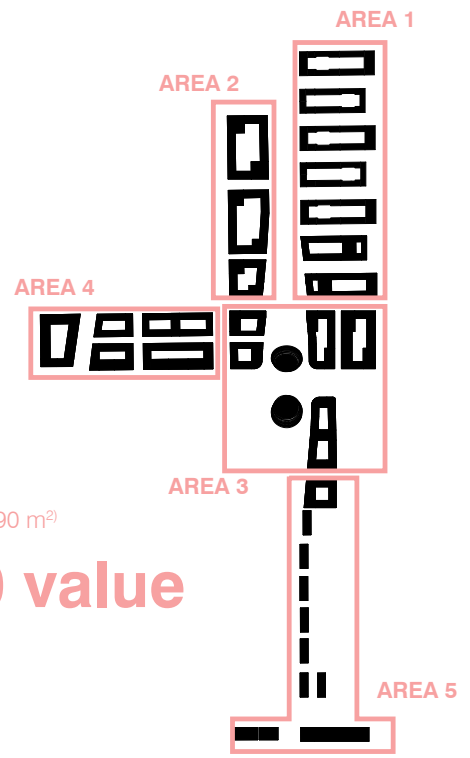


Proposal

# Introducing 8,400 New Homes



**756,000 m<sup>2</sup>**  
**8,400 units** (90 m<sup>2</sup>)  
**371.400.000 value**



New buildings along the A10 West

	<b>Buildings GFA</b>	<b>Amount of units</b>
Area 1	128,445.00 m <sup>2</sup>	1,427
Area 2	160,085.00 m <sup>2</sup>	1,778
Area 3	229,707.00 m <sup>2</sup>	2,552
Area 4	187,164.00 m <sup>2</sup>	2,079
Area 5	51,562.00 m <sup>2</sup>	573
	<b>756,963.00 m<sup>2</sup></b>	<b>8,409</b>
		Average unit size: 90 m <sup>2</sup>

Acquisition Cost:	€ 443,000,000
Demolition Cost :	€ 26,500,000
Construction Cost:	€ 2,102,250,000
<b>Total Project Cost:</b>	<b>€ 2,571,750,000</b>
<b>Indicative Value:</b>	<b>€2,943,150,000</b>

**Development Value: €371,400,000**

Quantity of connections is very good with a tunnel or bridge every 200m on average

Quality of connections is very bad. Low tunnels, monofunctional connections and desolated areas make the area feel unsafe



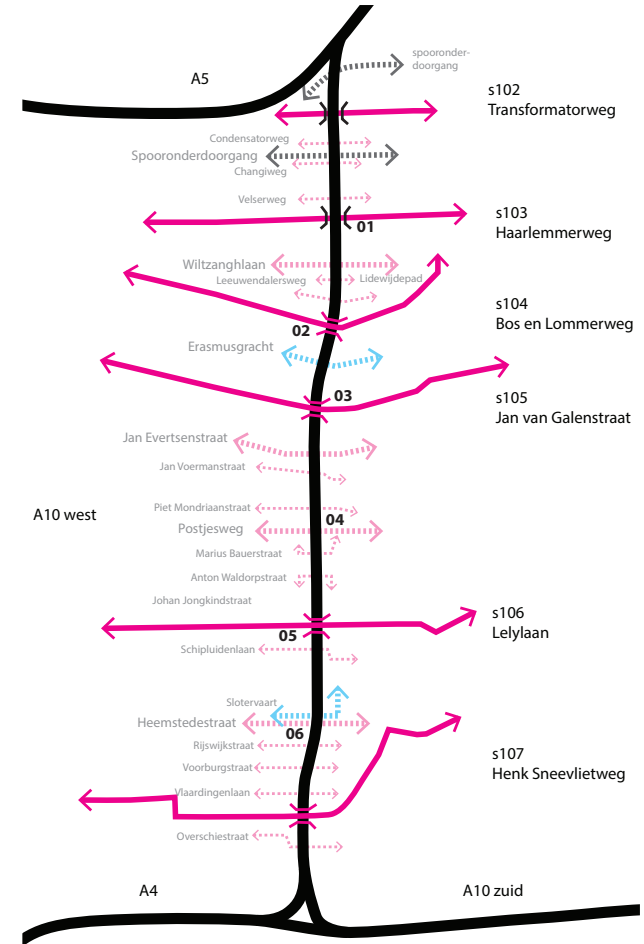
### Bridge typology solution

- Create a continuous street profile



### Tunnel typology solution

- Add interactive LED lighting







# Lelylaan Tomorrow













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