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# Marselistunnel

Building Network Construction  
Conference - BNCC 2026



# Agenda

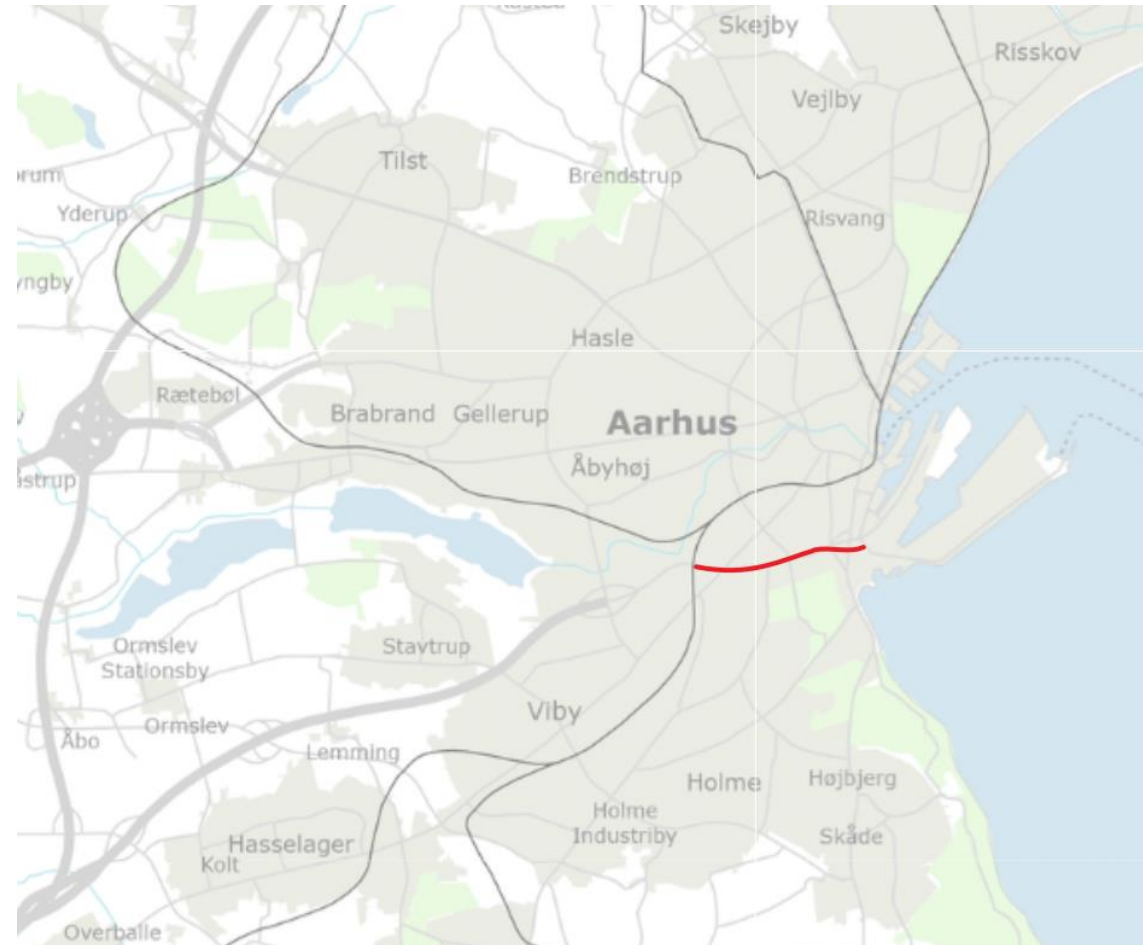
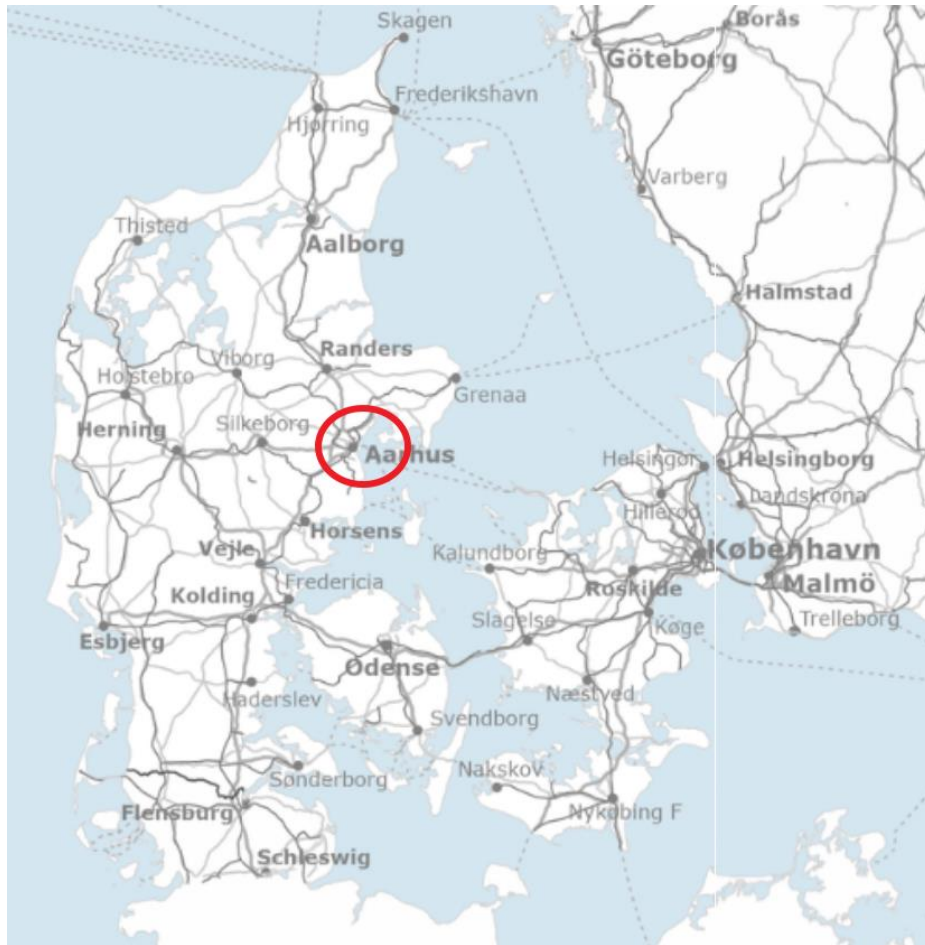
- **Project scope**
- **Time schedule**
- **Procurement**
- **Tunnel design**
- **Urban environment**
- **Sustainability**
- **Creating urban spaces**





# Project scope

# City of Aarhus



# Project map

Aarhus South motorway



West



Port of Aarhus

East

	Tunnel		Adgangsveje og parkering
	Vejanlæg		Sti
	Vejbane		Teknikbygning

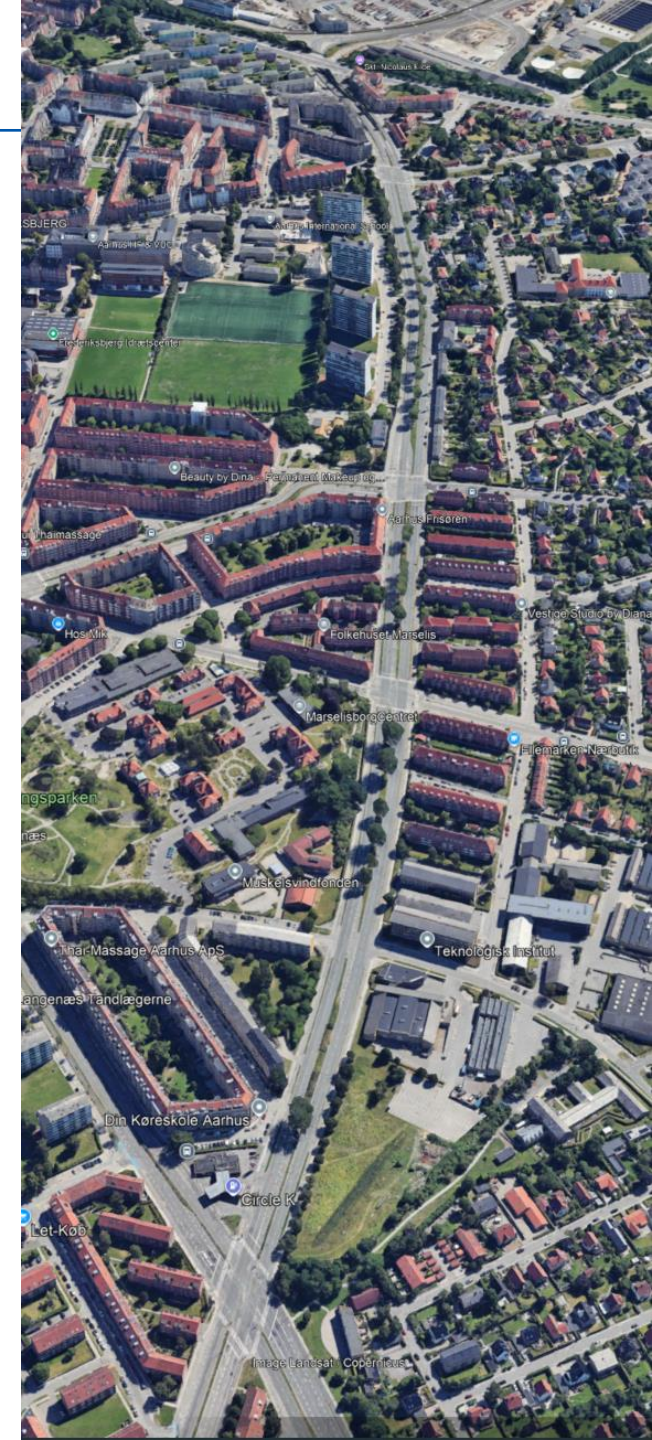
# Project – Outline of objectives

- The tunnel will enable a quieter area along Marselis Boulevard by minimizing heavy traffic from the port.
- The Marselistunnel will remove a barrier for residents and open up the city to the south, including the recreative areas where to better access will be provided
- It will bring a fast and robust road access to the Port of Aarhus and support business development at the port and the transport of goods by sea.
- Through traffic to the city center will travel below ground level and relieve the surrounding areas
- Opportunity for developing the area in a more green and recreational direction will be enabled



# The Project

- An approx. 1.8 km long cut and cover tunnel with 2 tubes each with 2 lanes located below existing Marselis Boulevard
- The environmental impact during and after construction, as well as necessary remedial measures, are described in the EIA report
- Soil from excavation will be build into soil baffle at nearby location in Stavtrup
- Total budget (2025): DKK 4,2 bill (€560 mio)
- Aarhus Municipality contributes with DKK 600 mio. (€80 mio)
- The construction period is estimated to 7-8 years.





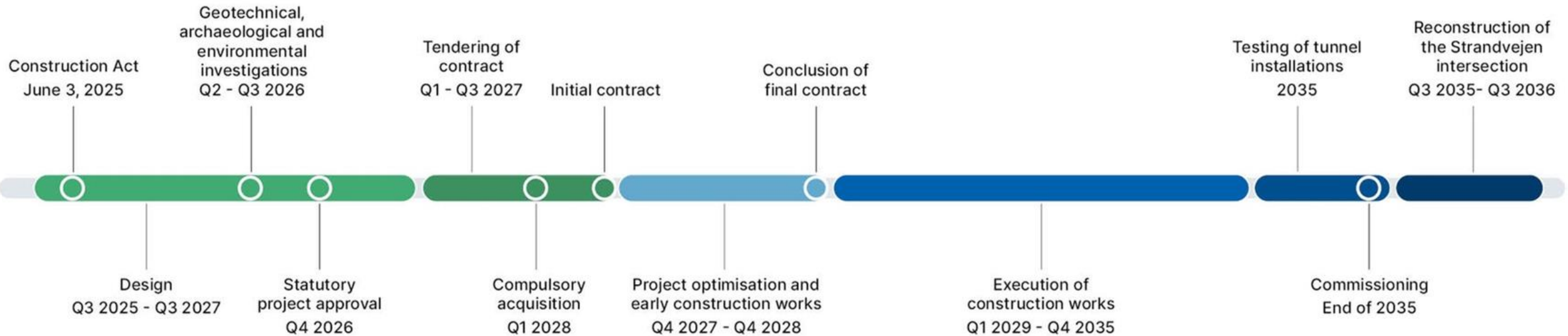
# West portal area



An aerial photograph of a city street, overlaid with a semi-transparent blue filter. The street runs vertically through the center, flanked by buildings and trees. On the left, there is a tall, modern building with many windows. On the right, there are smaller, residential-style houses. The sky is visible in the background, and the overall scene is dimmed by the blue overlay.

# Time schedule

# Time schedule



# Procurement

An aerial photograph of a city street, overlaid with a semi-transparent blue filter. The word "Procurement" is written in a large, white, sans-serif font across the center of the image. The background shows a mix of urban architecture, including a tall, modern building on the left and residential houses on the right, with a road and trees in the foreground.

# Procurement – Main contract

## Tunnel contract

Main contract including

- Detailed design
- Bill of Quantities

## Early Contractor Involvement (ECI)

Optimization phase



# Tender procedure



# Benefits from ECI

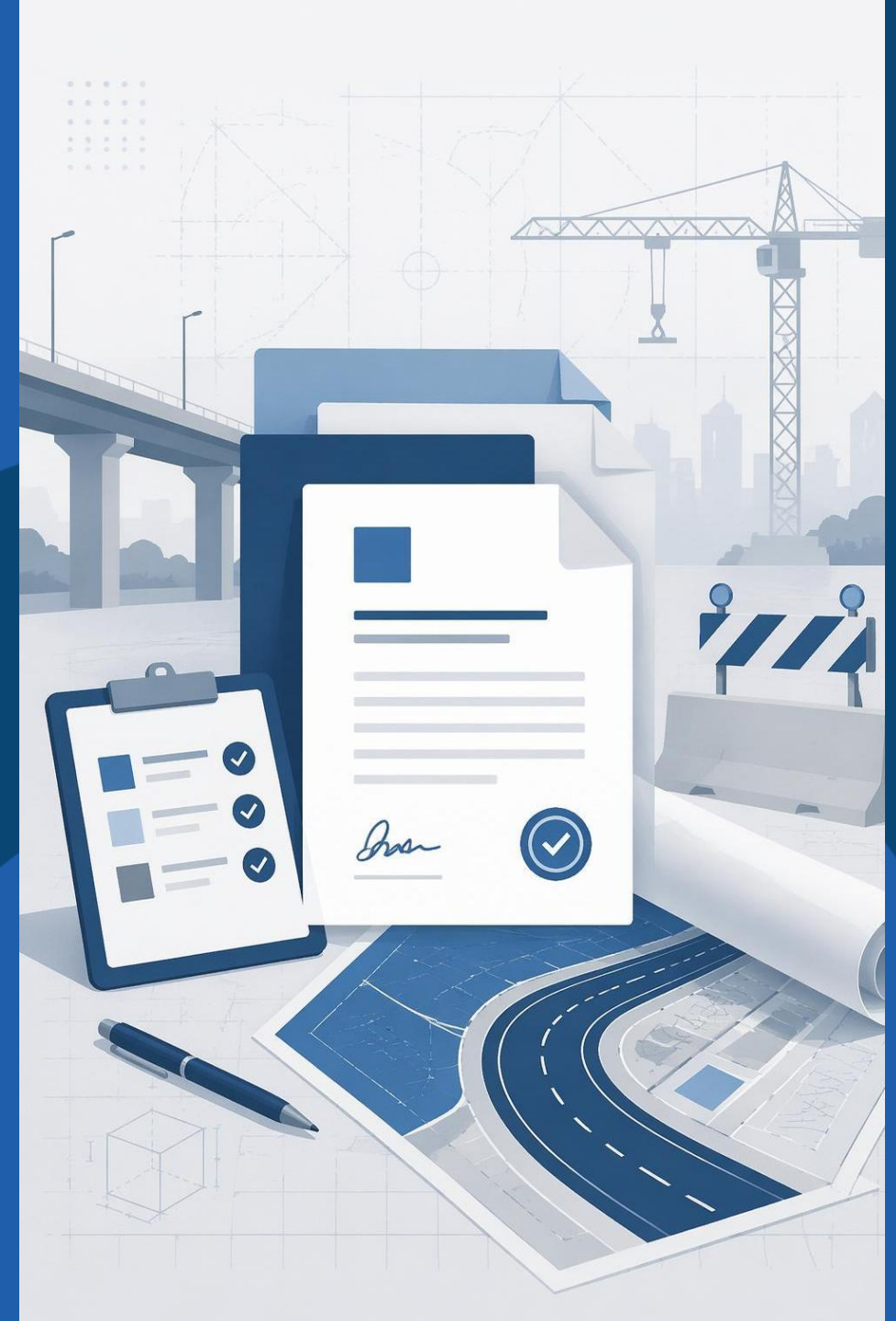
- Joint and open risk assessment
- Higher productivity – through influence on the planning of execution.
- Better time to familiarize with project materials before execution.
- Closer collaboration – and thus better conditions for understanding the fundamental needs of the project.
- Opportunity to influence the project based on the contractor's knowledge of execution and materials.
- Better profitability because production competencies and purchasing/discount opportunities can be utilized.





# Other contracts

- Preliminary investigations
- Tendering of preparatory works
- Preparatory works on and along Marselis Boulevard
- Preparatory works at Stavtrup
- SCADA ITV, ITS
- Demolition of properties
- Road realignment and intermediate ramps at the port
- Construction of noise screen at Stavtrup
- Reconstruction of the intersection at Strandvejen

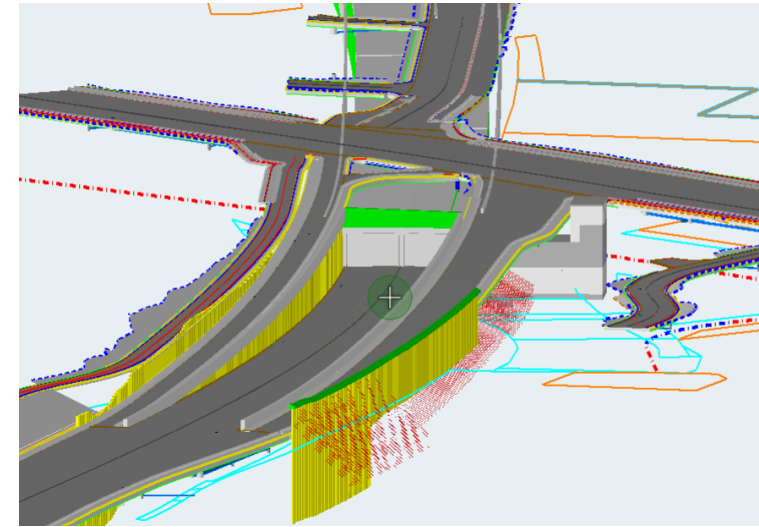


# Tunnel design

An aerial photograph of a city street, overlaid with a semi-transparent blue filter. The street runs vertically through the center of the frame, flanked by buildings and trees. On the left, there is a tall, modern building with a grid of windows. To the right, there are smaller, residential-style houses. The text 'Tunnel design' is centered in the upper half of the image in a white, sans-serif font.

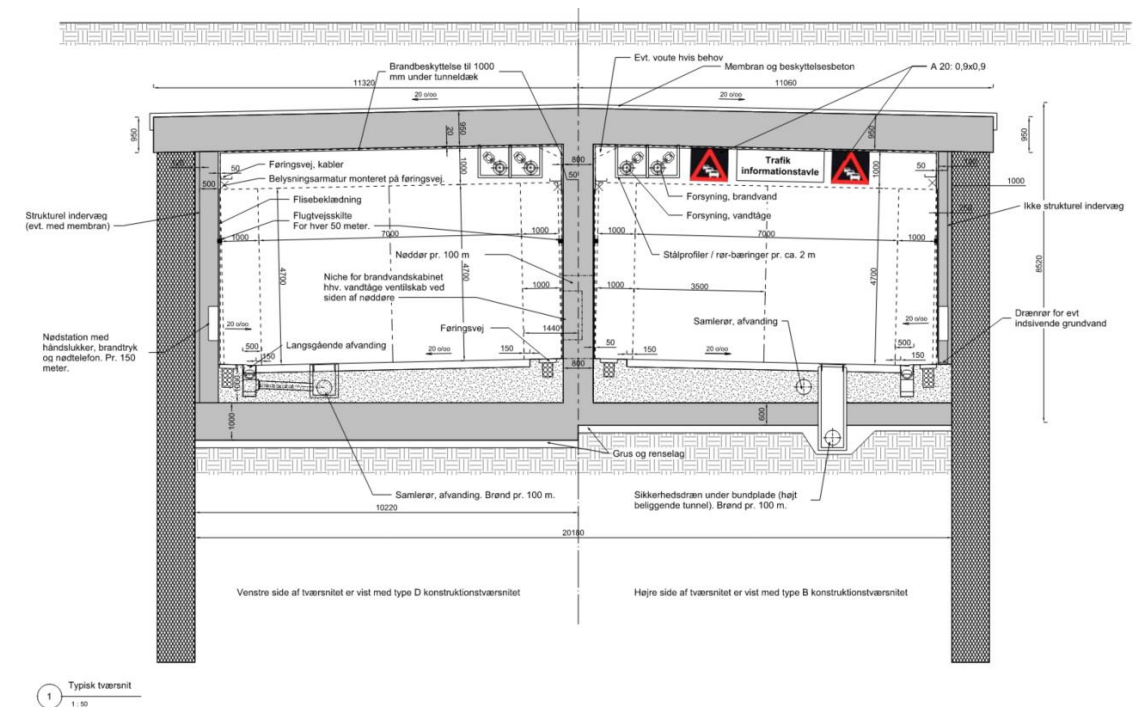
# Overall design

- Width of each tube is **9.0m**
- Headroom in tunnel is **4.70m**
- **1.0m** for installations above traffic
- **1.0m** ballast concrete on bottom slab
- 2 lanes each **3.50m**
- Allowed speed is **60 kph**



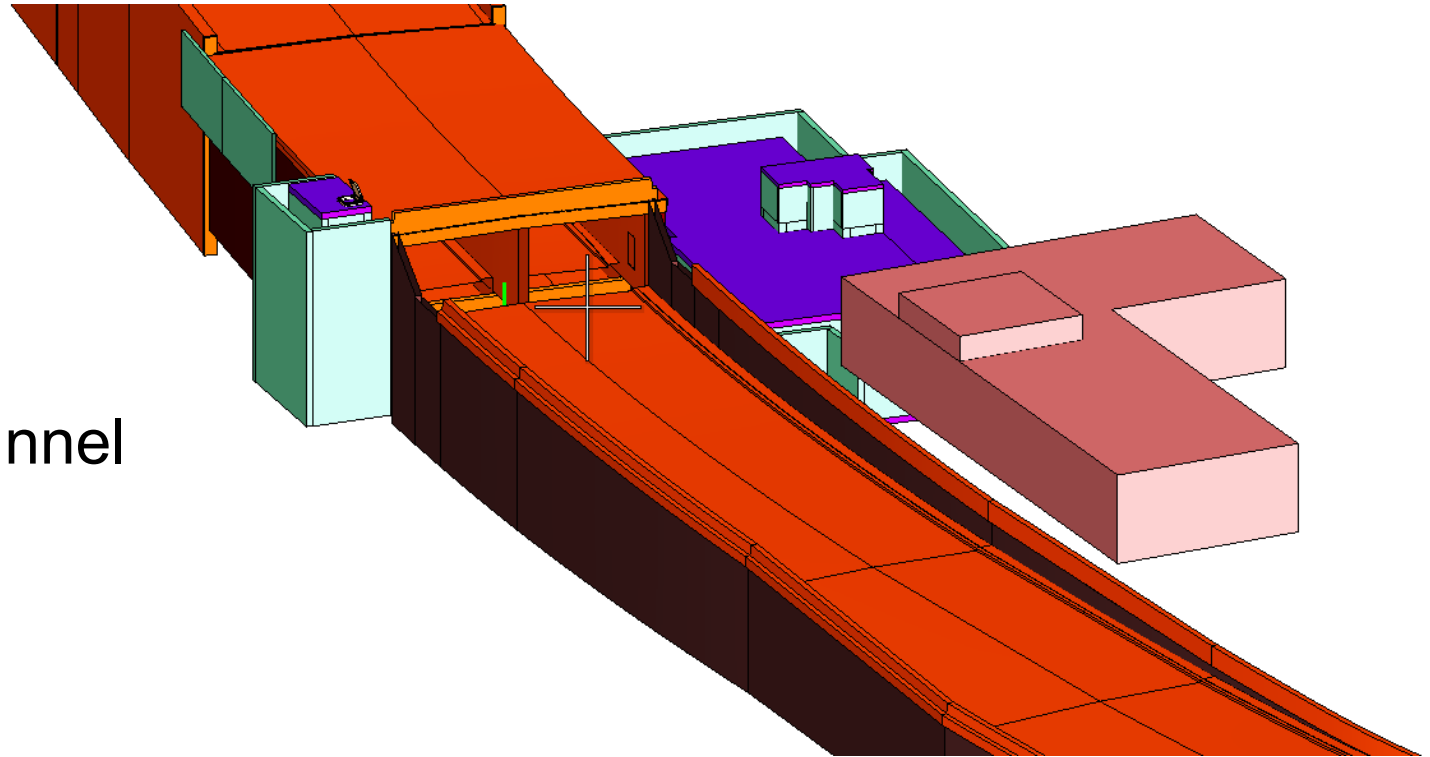
## Construction methods

- Cut and cover in different variants
- Top-down and bottom-up etc.



# Additional structures

- Tunnel ramps
- Water reservoir
- Waste water basin
- Rainwater basin
- Staircase and access to tunnel
- Pumps installations
- Technical facility buildings



# Urban enviroment

An aerial photograph of an urban environment, overlaid with a semi-transparent blue filter. On the left side, a tall, modern apartment building with a grid-like window pattern is prominent. To its right, a wide, multi-lane road stretches into the distance. The right side of the image shows a dense residential area with smaller houses and buildings, interspersed with trees. The overall scene depicts a mix of urban development and residential housing.

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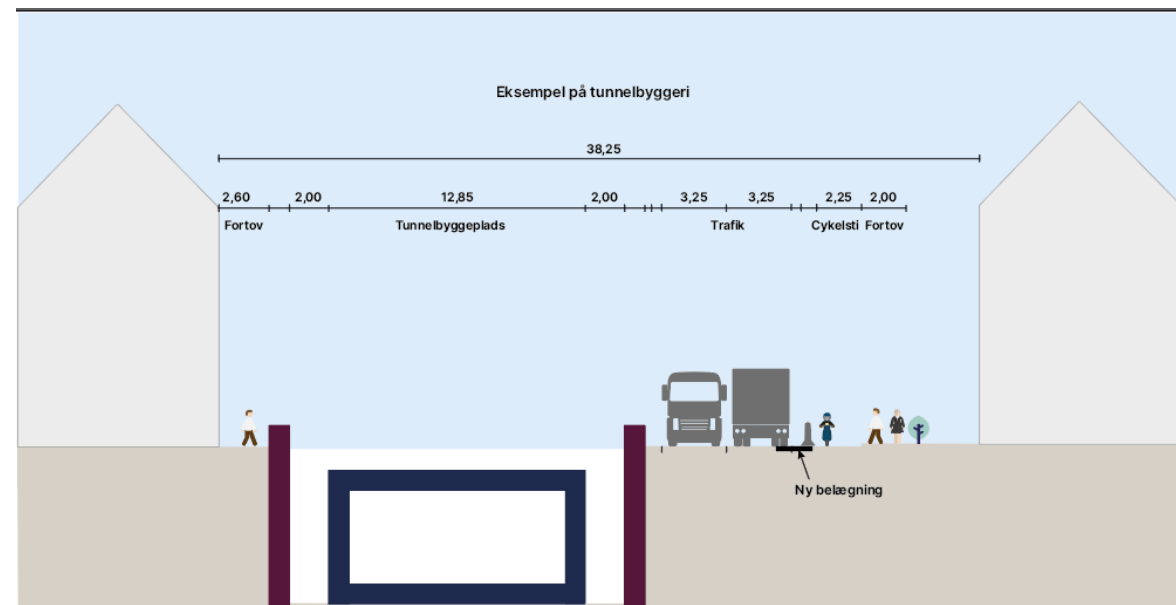
# Urban environment

Construction



# Construction conditions

- Required to have traffic in 2 lanes, one in each direction along the tunnel work site throughout the construction period
- Each half of the tunnel to be constructed separately on main part of the tunnel
- On the narrowest location there is approx. 38m between front of the buildings



# Construction constrains

- Extensive traffic constraints
- Substantial restrictions on construction activities due to surroundings
- Complex construction logistics
- Construction traffic mixed with ordinary traffic
- Emergency and rescue

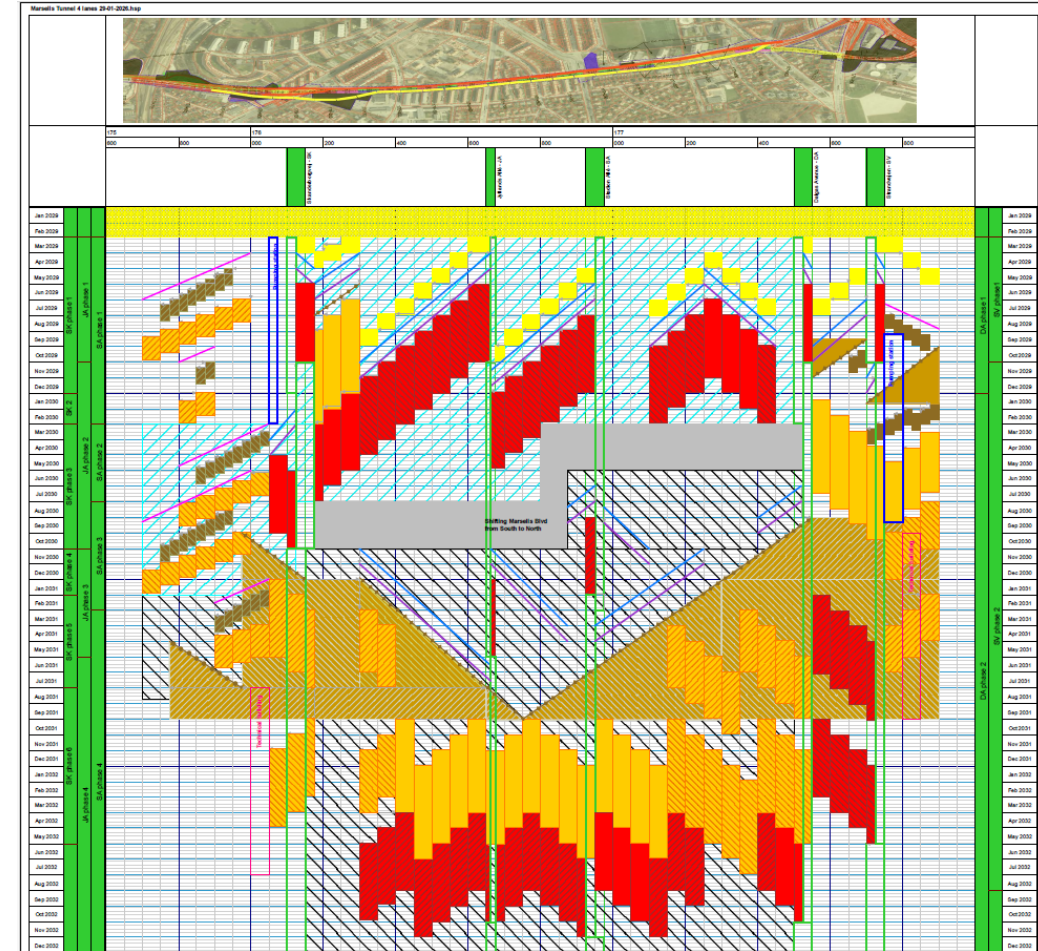
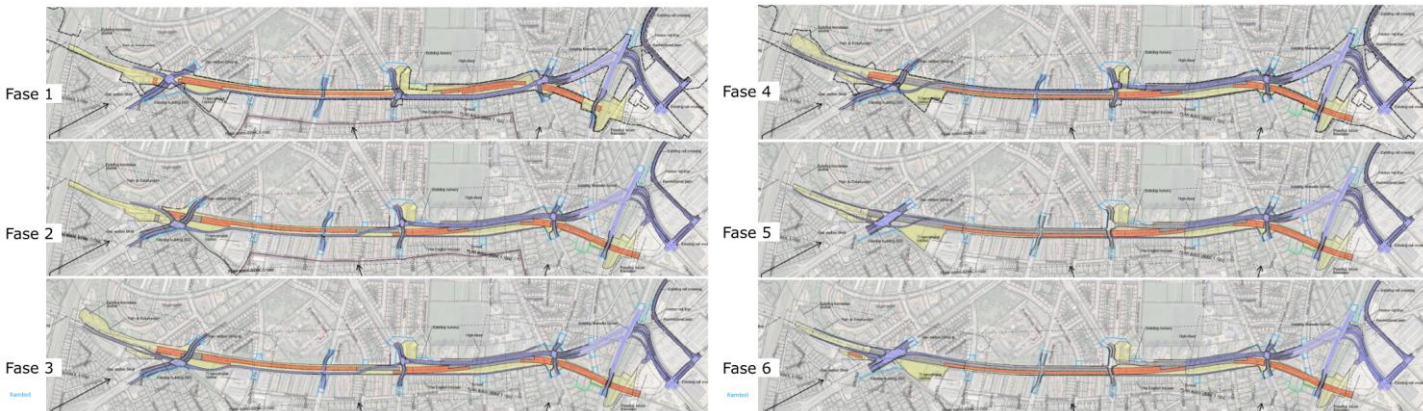


# Construction planning

## Key focus

- Reduce construction time
- Optimize traffic management
- Reduce nuisance

## 6 principal construction phases



# Nuisance from the construction site

Building a tunnel without inconveniencing both neighbors, road users, citizens and businesses is not an option.

- Noise
- Light from the construction site
- Dust
- Vibration
- Accessibility
- Traffic challenges
- Limited parking



# Monitoring

Program for monitoring 24/7

- Ground water level
- Vibration
- Settlements
- Emissions
- Noise levels
- Dust
- Traffic flow



# Stakeholder management



An aerial photograph of a city street, overlaid with a semi-transparent blue filter. The street runs vertically through the center, flanked by buildings and trees. On the left, there is a tall, modern building with many windows. On the right, there are smaller, residential-style houses. The word "Sustainability" is written in large, white, sans-serif font across the middle of the image.

# Sustainability

# Sustainability – Focus areas

## Five Focus Areas for Sustainability



**CO<sub>2</sub>e  
Reduction**



**Resources  
and  
circularity**



**Energy  
Reduction  
Construction  
Site**



**Health and Safety**



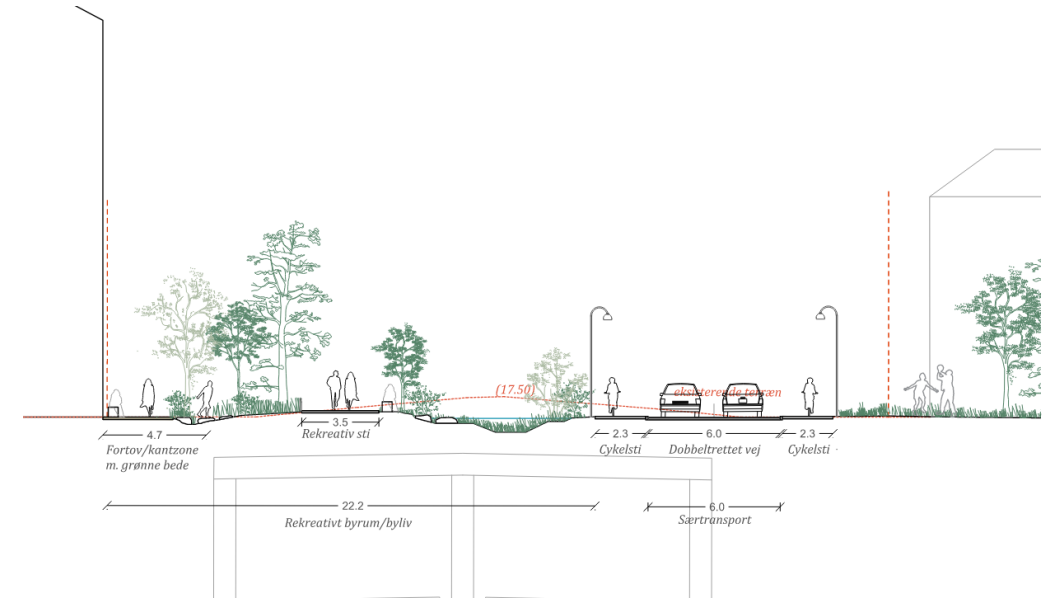
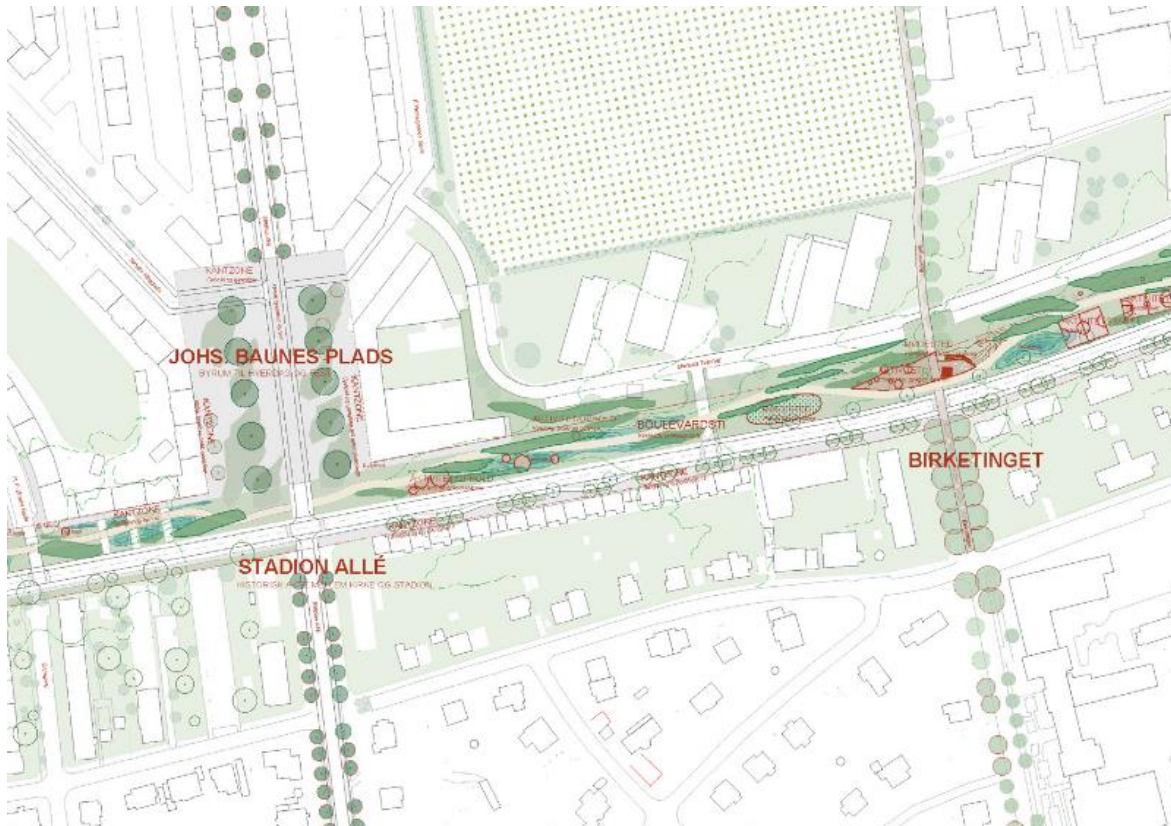
**Urban Community**

# Creating urban spaces

An aerial photograph of a city street, overlaid with a semi-transparent blue gradient. On the left side of the street, there is a tall, modern apartment building with many windows. To the right, there are several smaller, traditional residential houses with gabled roofs. The street is wide and appears to be a main thoroughfare. The overall scene is a mix of urban density and residential character.

# Increased life quality for the community

## Green and recreative corridor connecting the city





# Information

# Find more information

Project home page:

[Marselistunnelen | Vejdirektoratet](#)

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**Thank you for your  
attention**