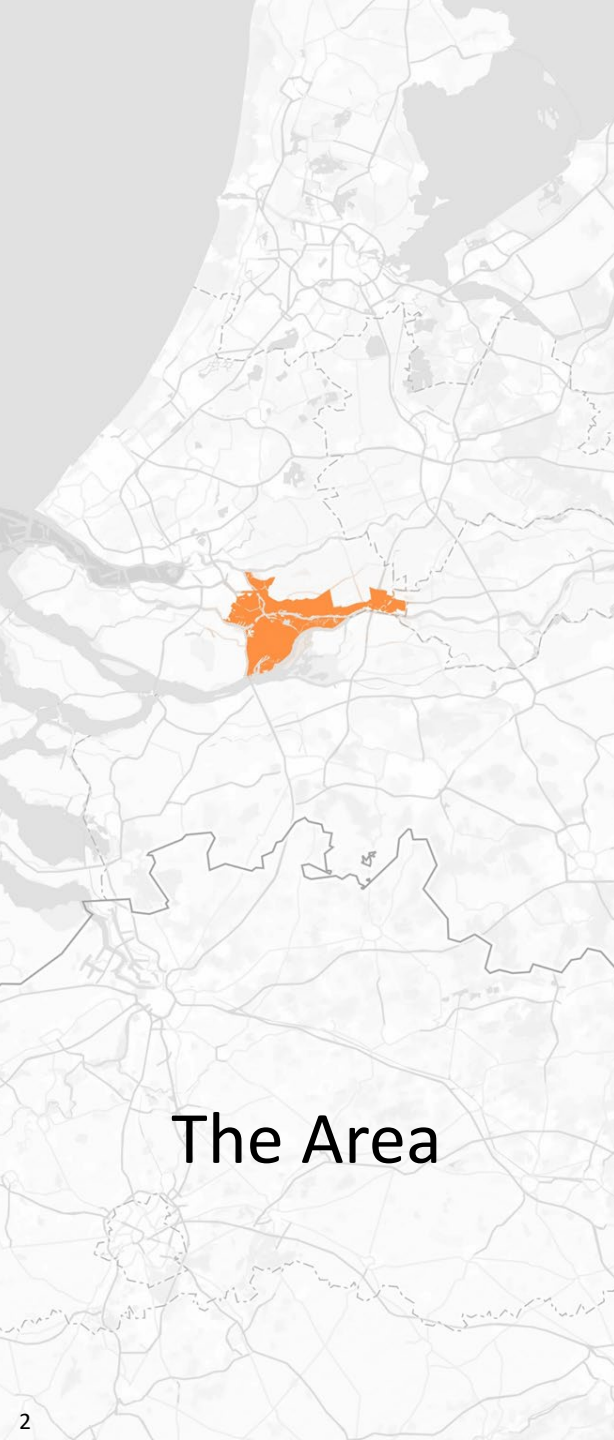


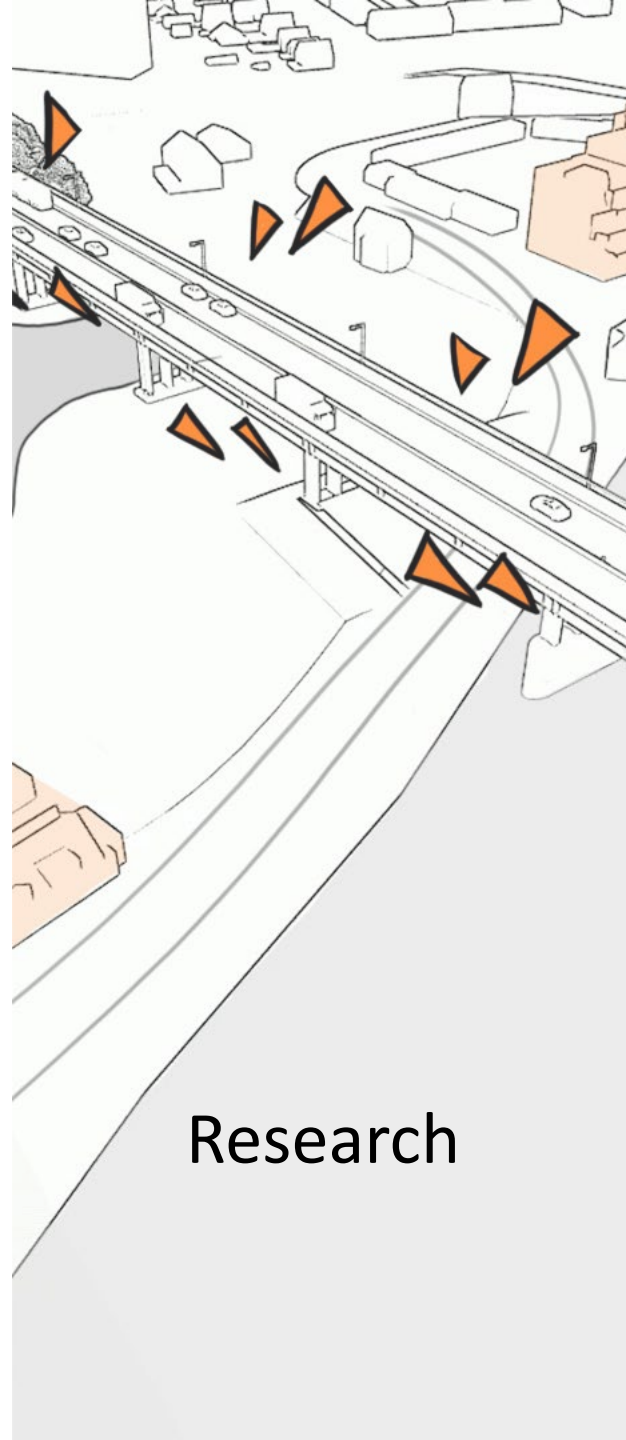


BAAD

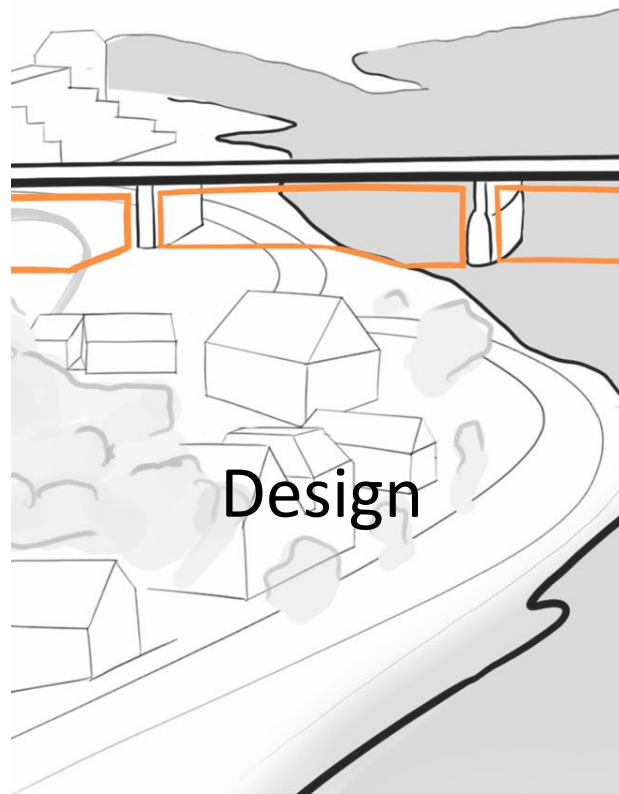
KAY KNUBBEN



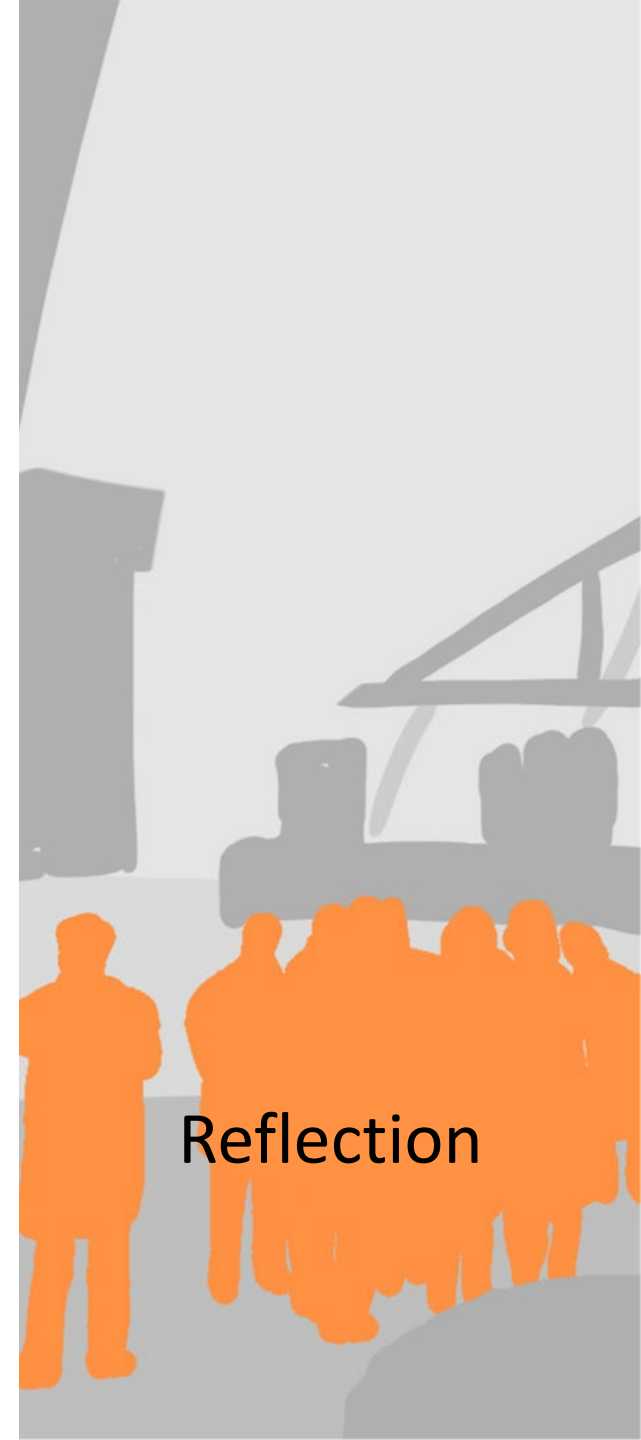
The Area



Research



Design



Reflection

The area De Waterdriehoek



The area De Waterdriehoek



The area De Waterdriehoek



The area De Waterdriehoek through different scales



XL



L



S

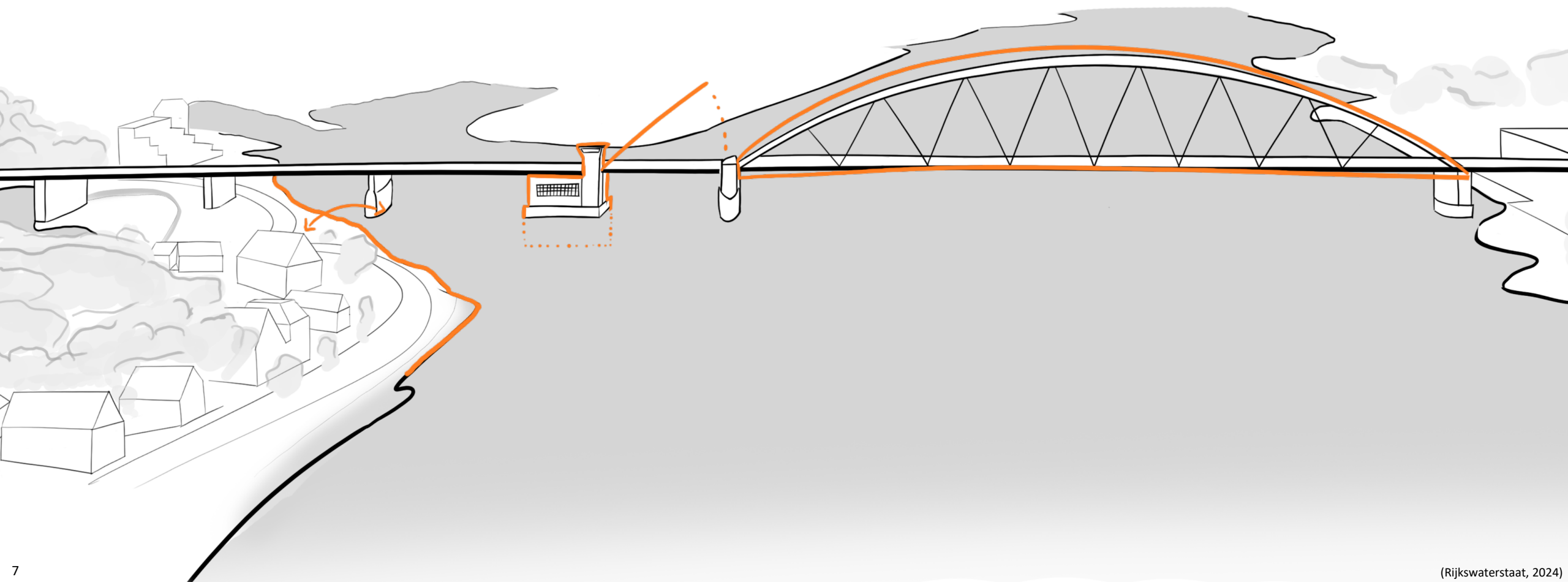


The area De Papendrechtsebrug

1 Direct relation water
& land

2 Planned renovation
2024-2027

3 Industrial maritime
icon Waterdriehoek





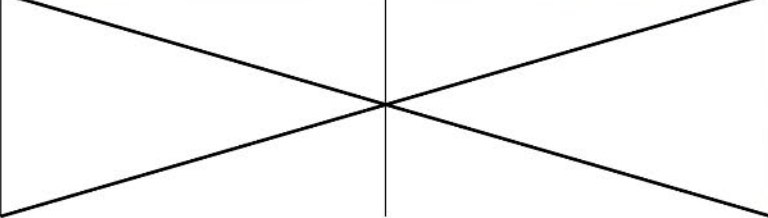
Research Current developments



Research Problem statement

Current developments of circular bridge reuse strategies focus on technical reuse, often overlooking the importance of preserving a bridge's heritage value in its original context. Consequently, a friction could exist between aligning circular bridge reuse strategies together with their individual heritage values for local communities.

Research Analytic framework

		MATERIAL LEVEL (Durmisevic and Brouwer, 2002)		
		1 Bridge	2 System	3 Component
LEVEL OF REUSE (AmRoR, 2021)	1 Renovation			
	2 Functional reuse			
	3 Adaptive reuse			
	4 Reuse of parts			
	5 Material recycling			

Research Drivers & Challenges

LEVEL OF REUSE (AmRoR, 2021)

		 Technical drivers and challenges  Operational drivers and challenges  Communal drivers and challenges
1	Renovation	 Current safety standards, condition of materials and elements, functional bottlenecks
		 Cost and time effectiveness, specialized knowledge, individual timeline of components
		 Preservation of historical or cultural value
2	Functional reuse	 Mismatch of function and location
		 Cost and time effectiveness, specialized knowledge, aligning supply and demand
		 Preservation of historical or cultural value
3	Adaptive reuse	 Incapable of revising existing function, current safety standards for new function
		 Economic revitalization, unintended social impacts, legislation
		 Preservation of historical or cultural value, urban green space creation, communal engagement
4	Reuse of parts	 Incapable of higher level reusability, individual timeline of components
		 Cost and time effectiveness, individual timeline of components
		 Insufficient cultural/historical value
5	Material recycling	 Higher levels of reuse are not feasible
		 Cost and time effectiveness, higher levels of reuse are not feasible
		 Insufficient cultural/historical value



Research for design Introduction Papendrechtsebrug

1967

ir. W.J. van der Eb - Rijkswaterstaat

Penn en Bauduin from Dordrecht

23-09-1967



Research for design Introduction Papendrechtsebrug

Shipyards Veldhuis



Reed island



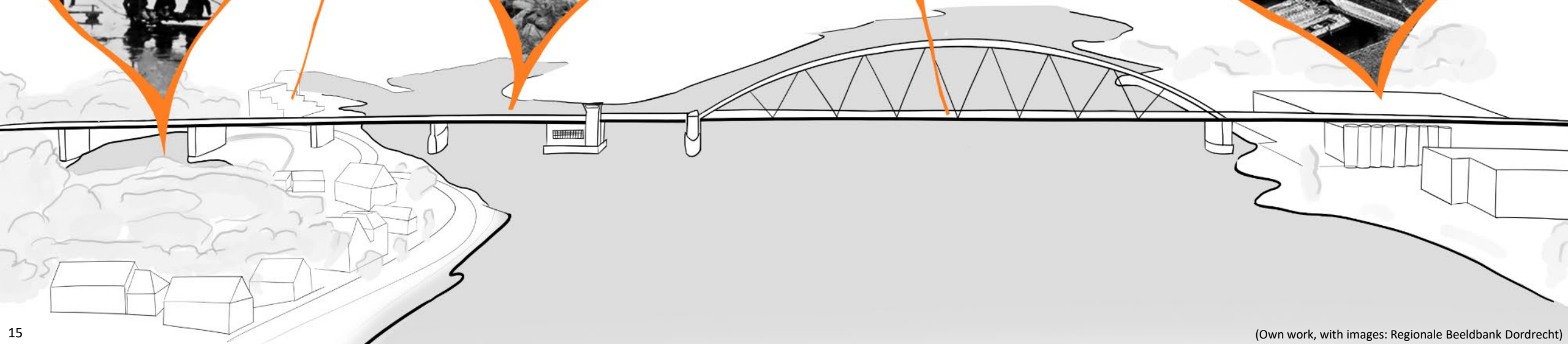
Opening Papendrechtsebrug



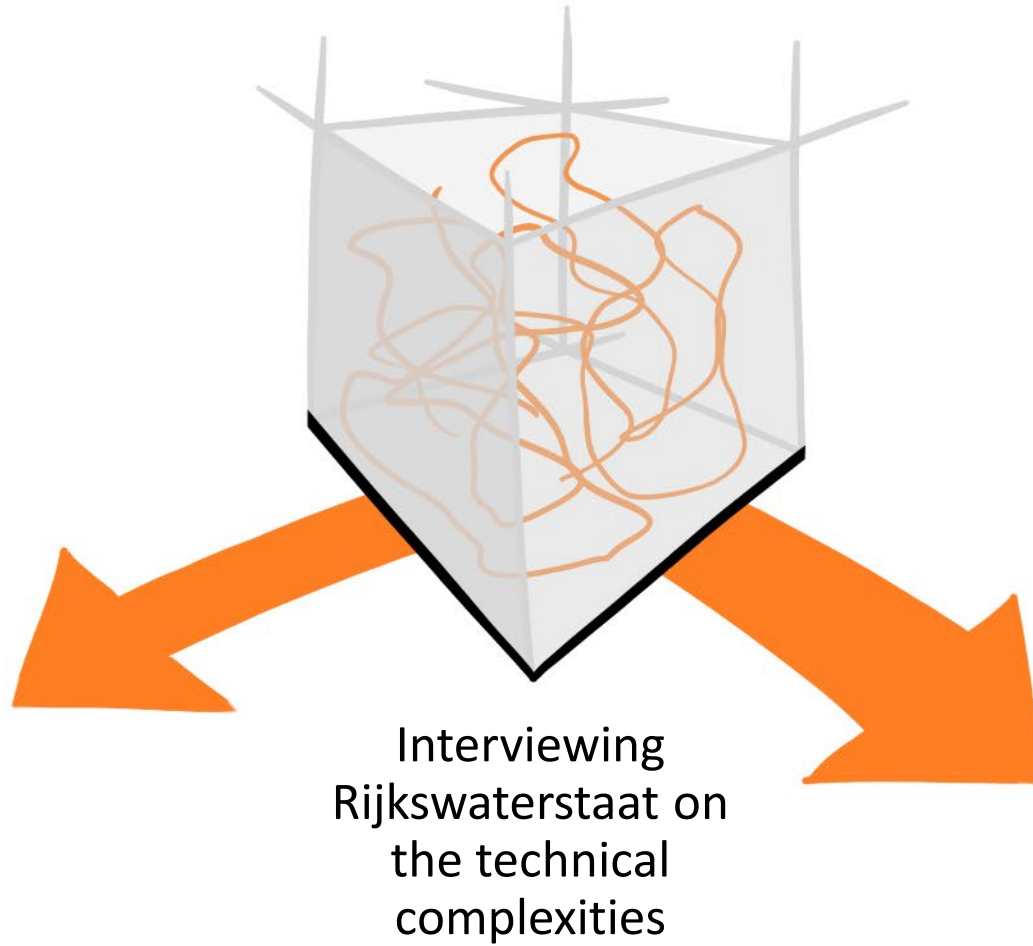
Merwede power plant



De Grote Waal



Research for design The community



Understanding the values
of the local community by
talking to them





Research for design North riverbank



Research for design South riverbank

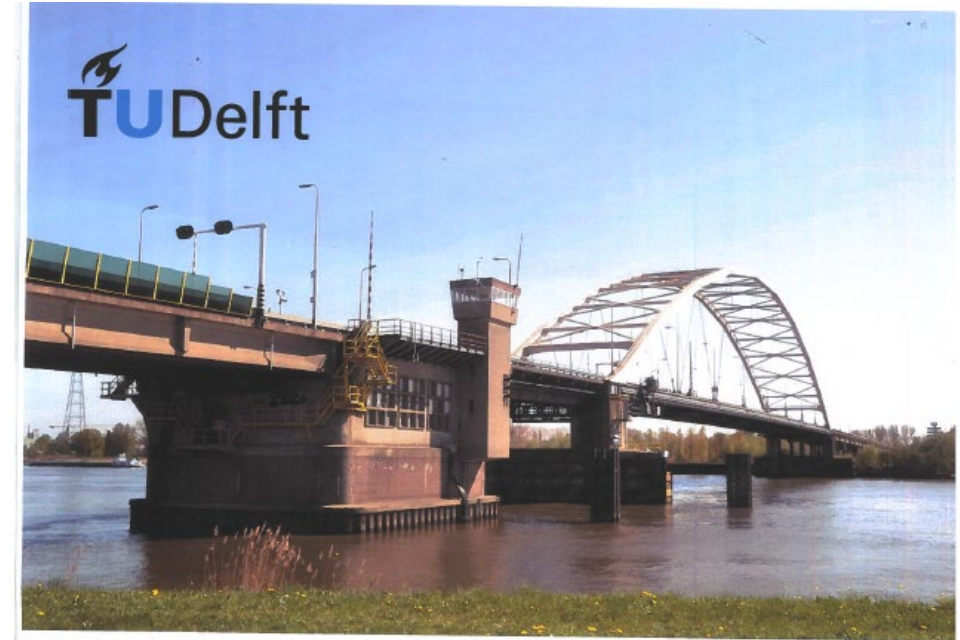




“Did you come for the noise?”

“The connection saved my husband's life when I had to rush him to the hospital.”

“When I go out, I automatically look at the water level”

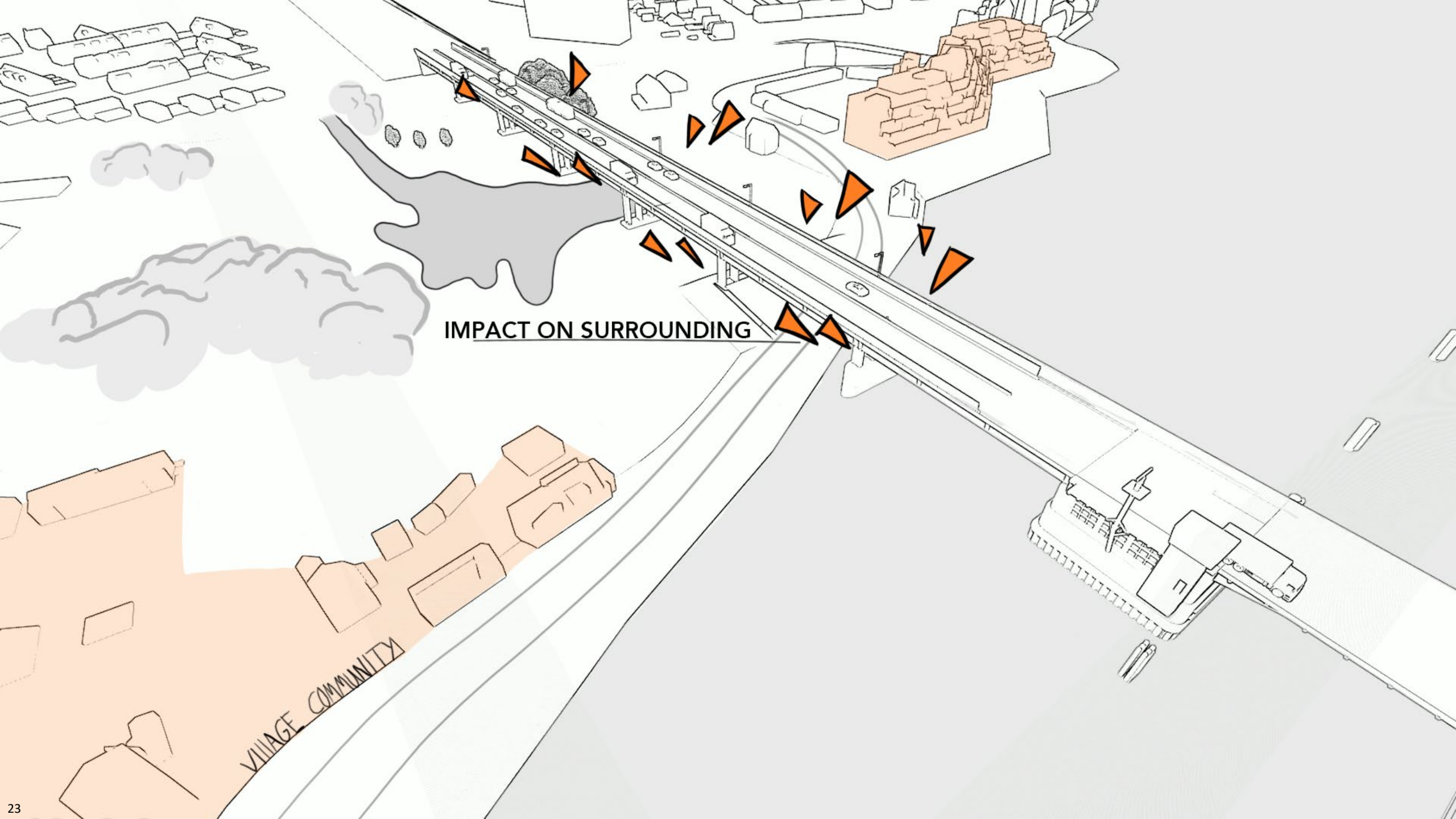


Werkstuk Papendrechtsebrug student Bouwkunde TU Delft

Voor mijn werkstuk ben ik op zoek naar de mening en gedachten van omwonenden van de Papendrechtsebrug. Deel uw mening en gedachten anoniem hieronder op een lege regel. Dit mag alles zijn wat in u opkomt. Alvast bedankt!

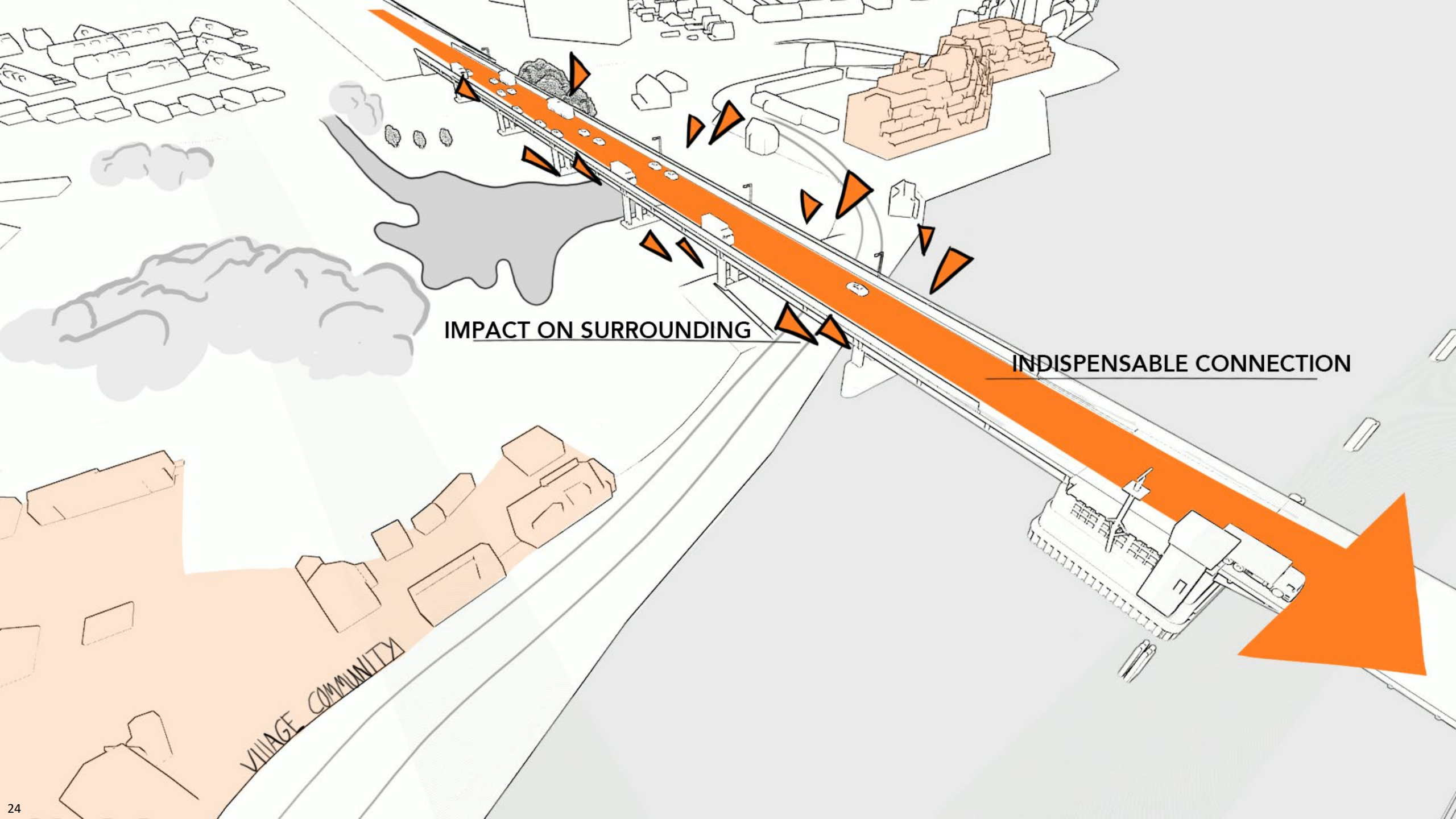
Dit printje wordt uiterlijk woensdag 27 november weer opgehaald. Bij vragen mail Kay Knubben - kknubben@tudelft.nl

1. Misschien iets tegen de zijkant tegen geluid overlast verkeer?
2. Misschien iets dichtere weg door de sleep, in plaats van de bomen die niet tegen elkaar bevestigd zijn.
3. En de bevestiging na verloop van tijd los weeten en gaan schippen.
4. Brug wordt slecht onderhouden, in 30 jaar (dat ik naast de brug woon, is hij slechts 2x geschilderd.
5. Betonwerk is ook zeer slecht.
6. Brug niet elk uur open doen voor (pleziervaart), voor een zeilboot.
7. Slaat het verkeer (vrachtwagens) kilometers stil.
8. Voor vermindering van het geluid, de snelheid verlagen naar 50 km/h.
9. Het zou aardig zijn als een slimmerd uit Delft een projecteren maakt om de geluidsoverlast op te lossen.
10. Snelheid verlagen. Goet vope geluid en minder onderhoud.



IMPACT ON SURROUNDING

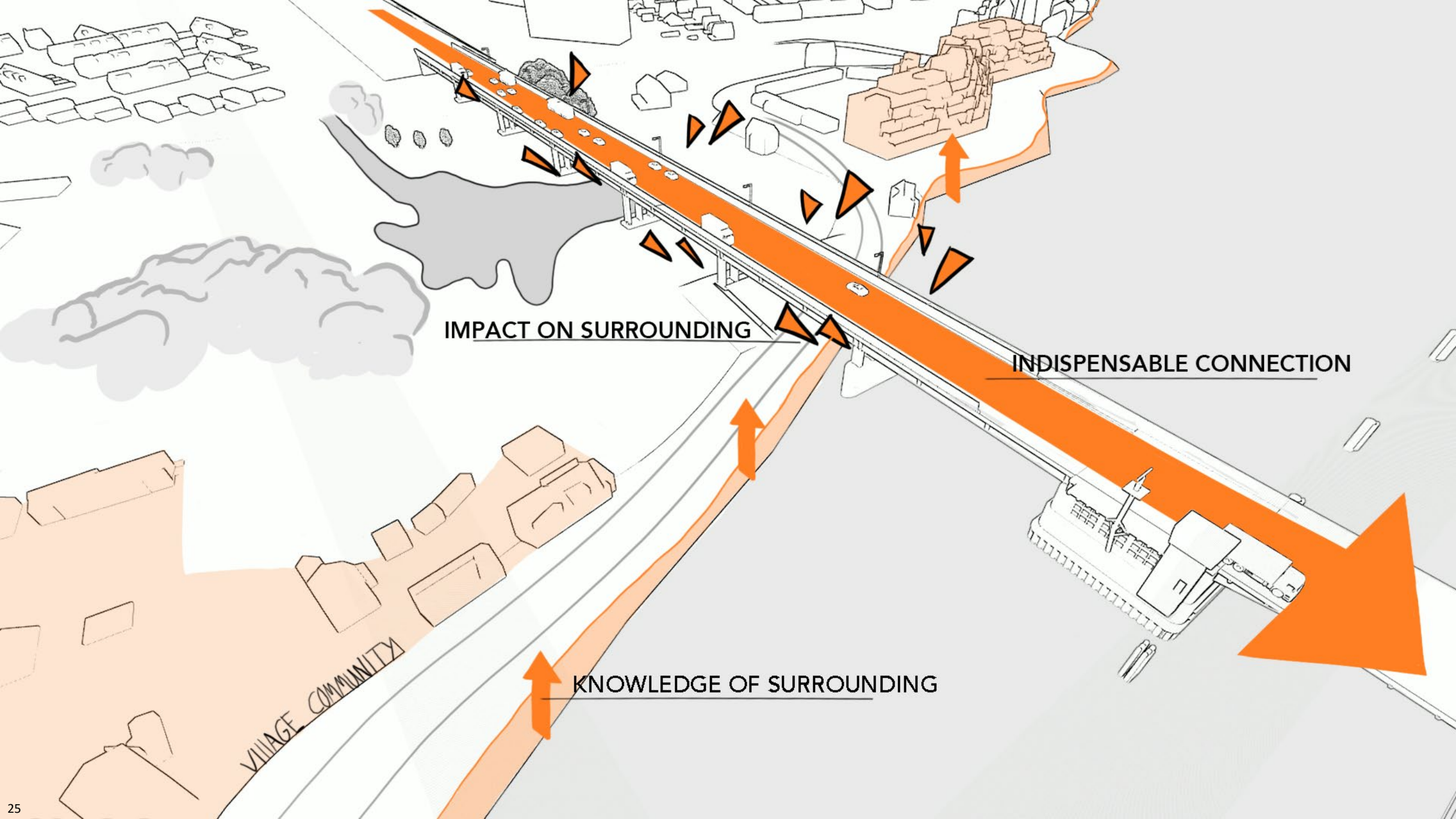
VILLAGE COMMUNITY



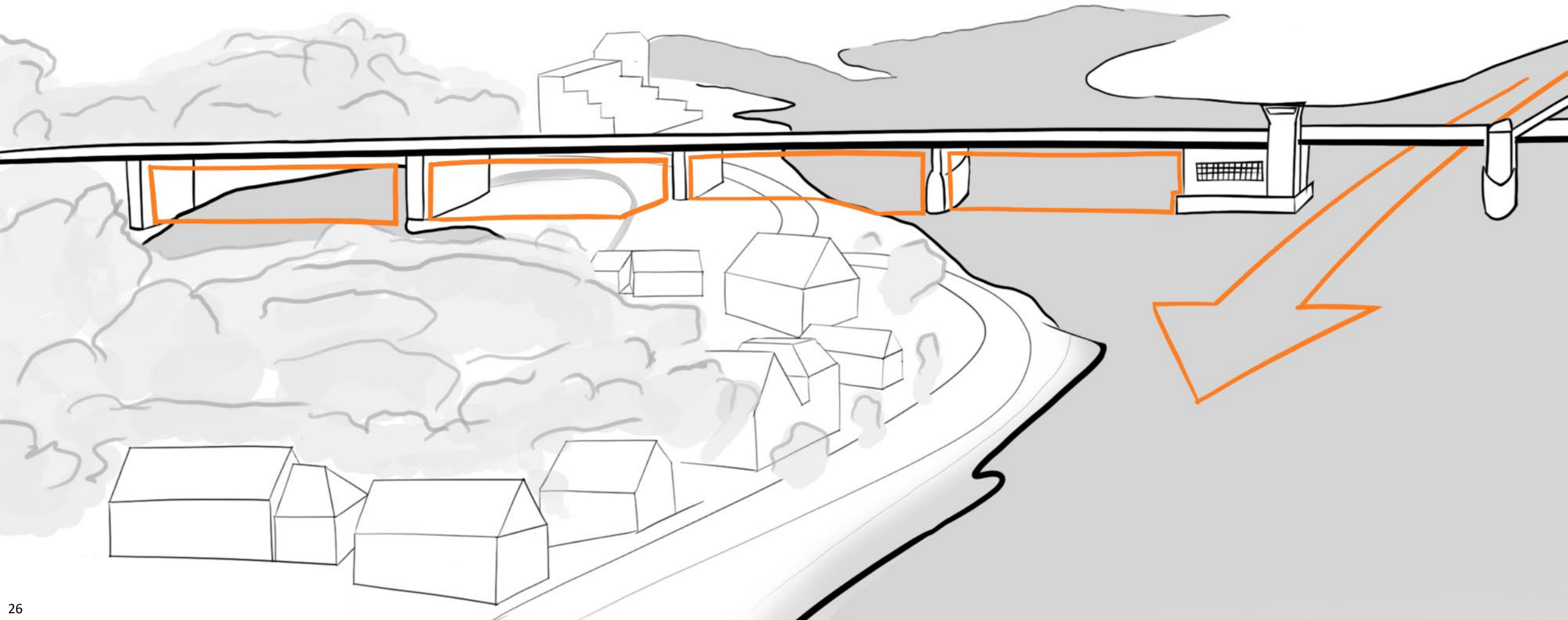
IMPACT ON SURROUNDING

INDISPENSABLE CONNECTION

VILLAGE COMMUNITY



Research for design Opportunity

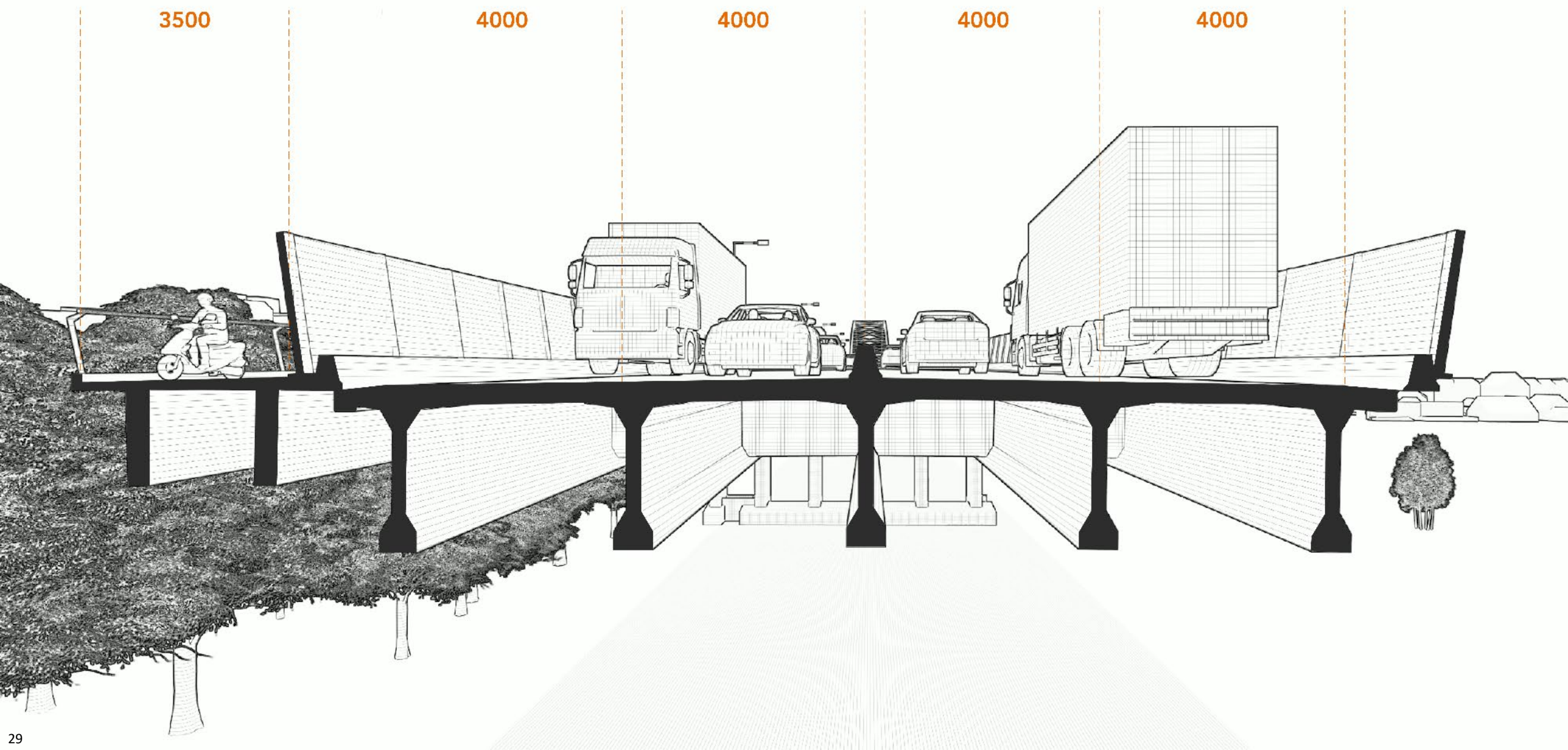


Research for design Opportunity





Research for design Bridge Architecture



Research for design Bridge Architecture

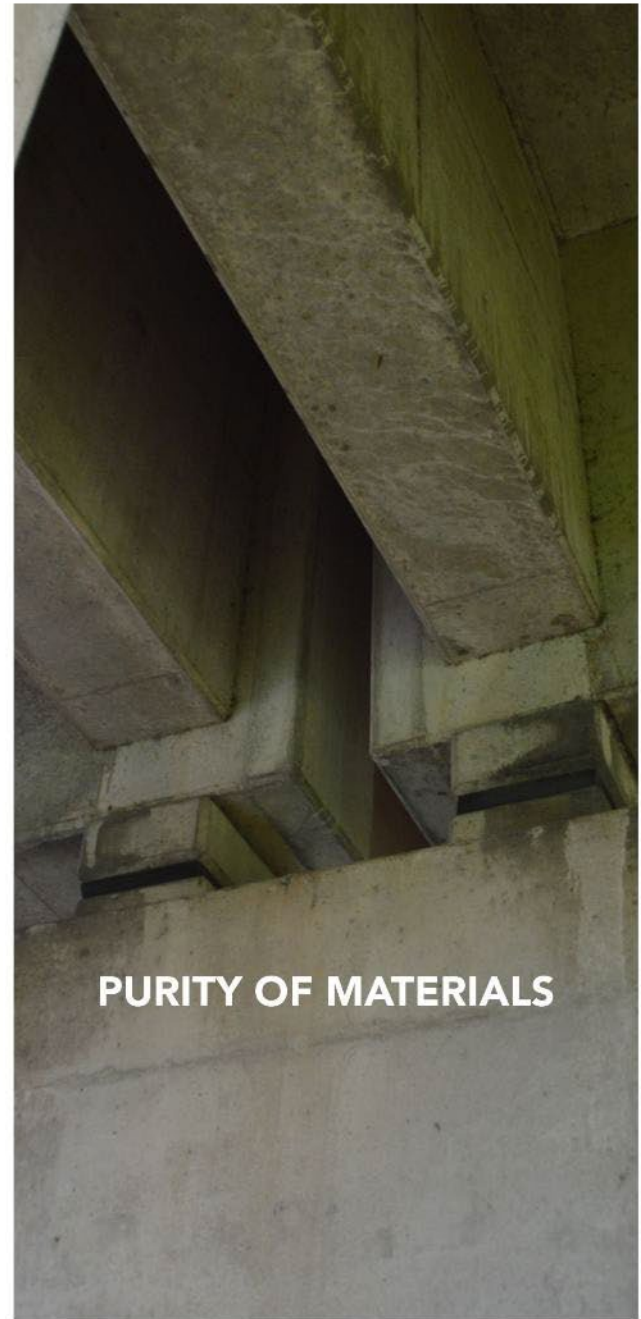
1972





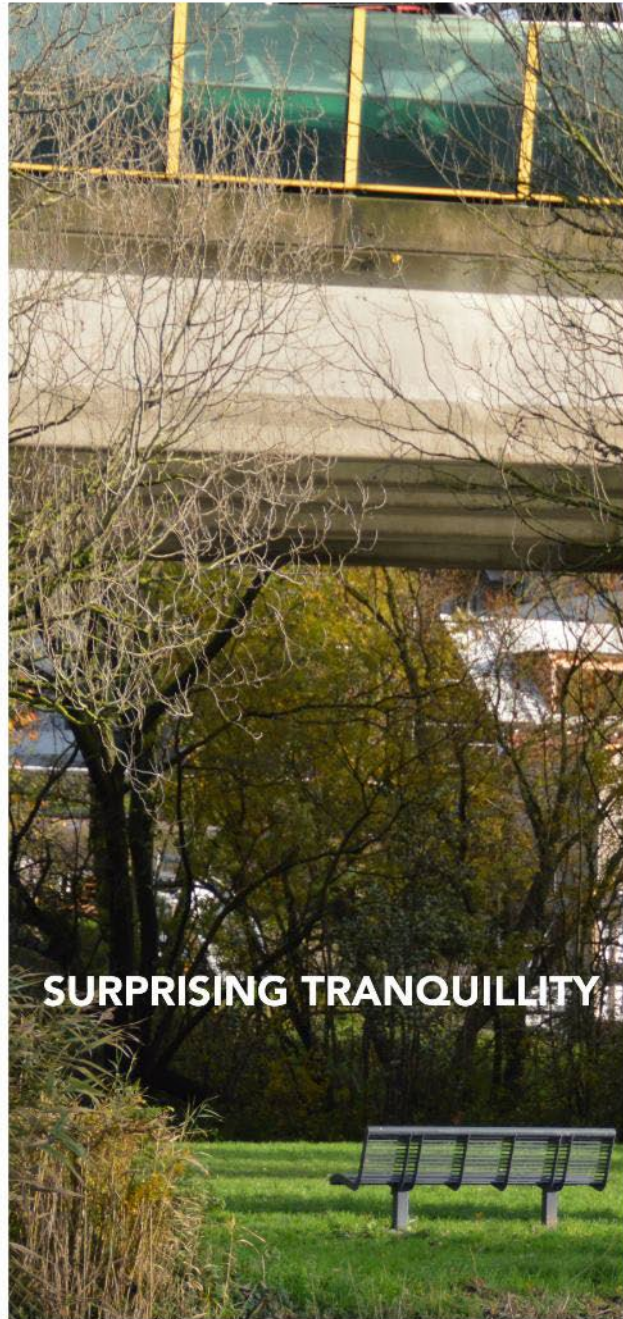


Kafa Duman

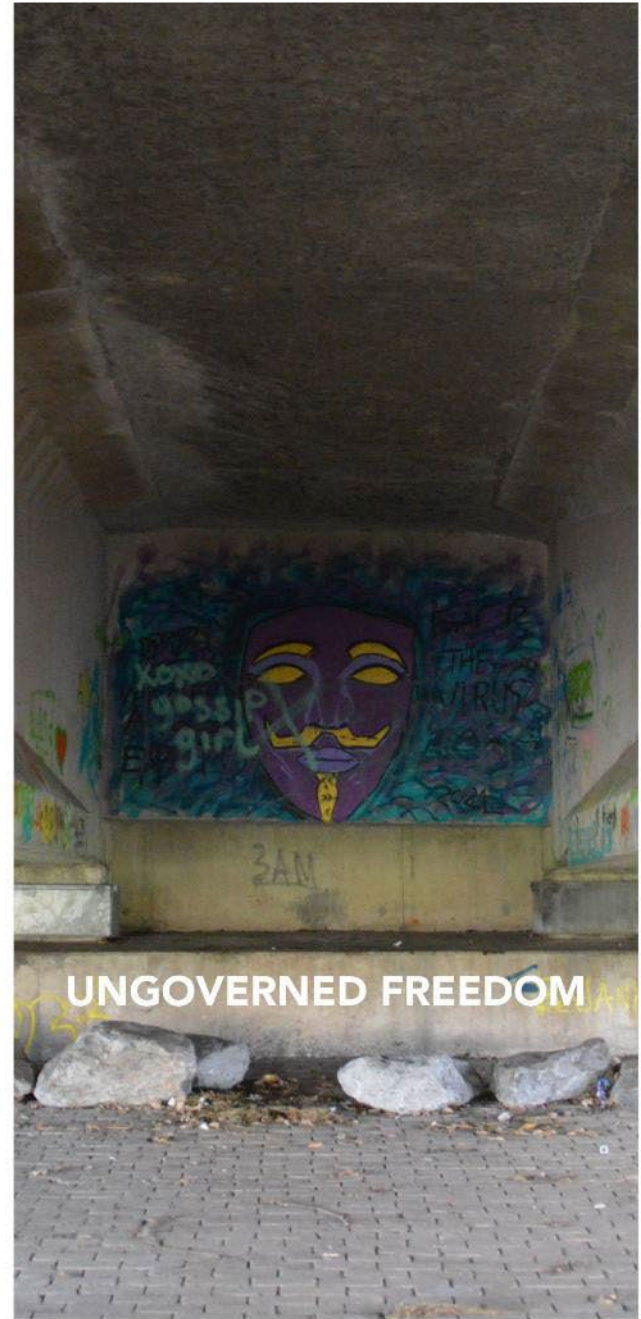




ICONIC CONNECTION

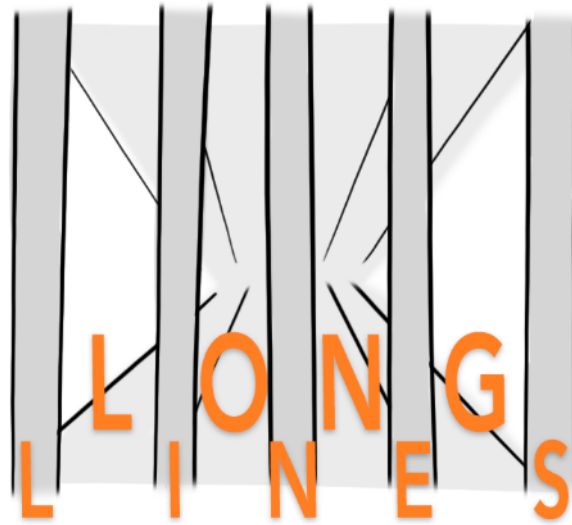


SURPRISING TRANQUILLITY



UNGOVERNED FREEDOM

Design Site specific guidelines



Design De Waal as centre

1929



Vissersbuurt 1929 - ijsvermaak op de grote waal

Design De Waal as centre

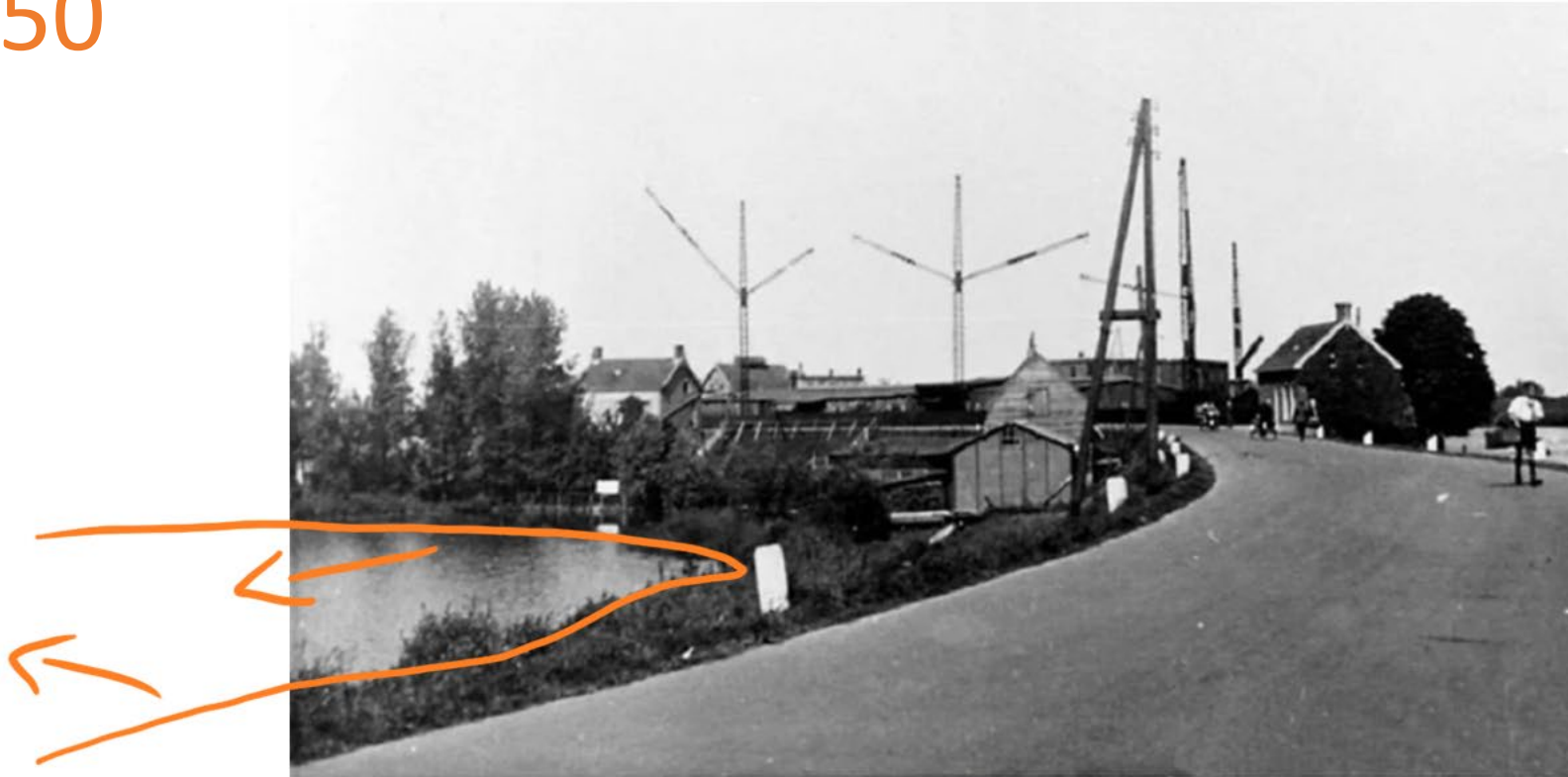
1939



Visserbuurt 1939 - de baanverzorgers op de grote waal

Design De Waal as centre

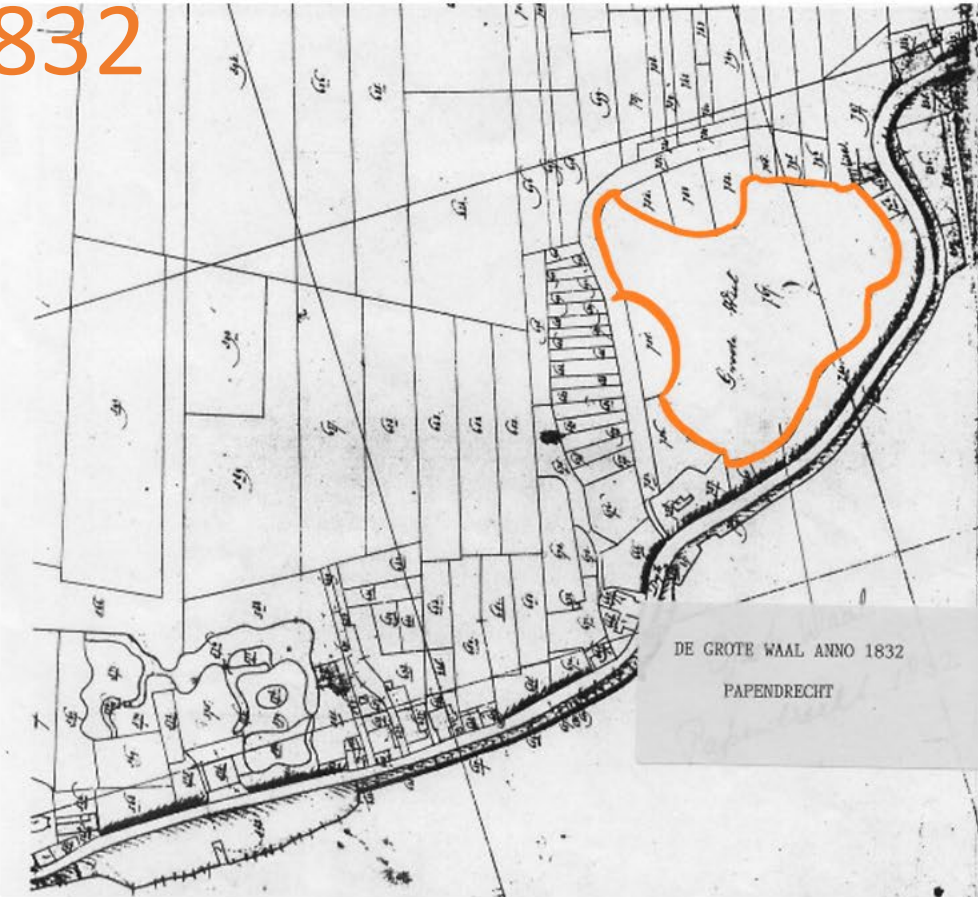
±1950



Vissersbuurt 1950-1955 - ter hoogte van de grote waal

Design De Waal as centre

1832



2024



Design De Waal as centre

±1970

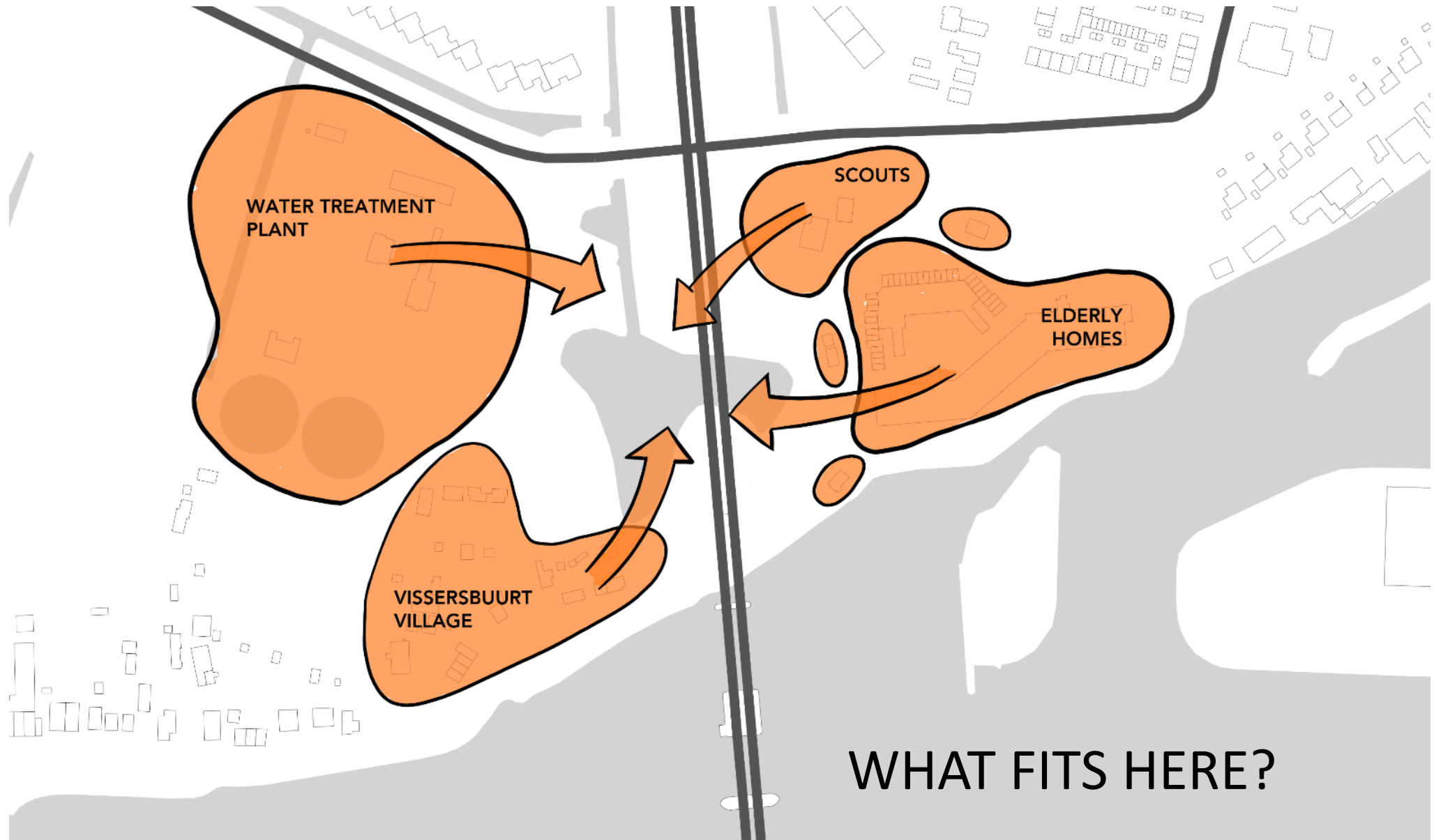


Design De Waal as centre

2021



Design De Waal as centre



Design De Waal as centre



Design De Waal as natural pool



Design The community as owners



Een voorstellen

Ons verhaal

Zwembad de Huzelaar is in 1981 gebouwd. Al sinds 1993 wordt het zwembad volledig door vrijwilligers gerund – en zonder subsidie. Een enthousiast team vrijwilligers draait alle kassa-, winkel- en toezichtdiensten. En ook de machinekamer en het (groen-) onderhoud worden door vrijwilligers gedaan.

Samen houden we het zwembad draaiend: Draag jij ook je steentje bij? Waar jouw kwaliteiten ook liggen, we hebben altijd wel een passende klus voor je! En alle kleine beetjes helpen.



Zwembad wordt gerund door vrijwilligers die voor en achter de schermen actief zijn.
Als vrijwilliger heb je een rol te spelen in het zwembad en de organisatie. Het is een uitdaging om te zorgen dat het zwembad open blijft en dat de kinderen de buitenruimte kunnen gebruiken als recreatie voor hun tijd.

Zwembad de Meent

www.zwembaddeemeent.nl

Foto's

Openingstijden Van half mei tot en met half september is het zwembad geopend!



<https://deweid.nl/het-zwembad/>

www.zwembad...

Openingstijden | Zwembad 't Molengors

Wij zijn een bad dat gerund wordt door vrijwilligers en stemmen onze openingstijden af op de tijden waarop zij beschikbaar zijn. Die tijden staan in onderstaand schema. Dit schema geeft een indicatie; vrijwilligers kunnen op het laatste moment immers ni...



www.meekenesch.nl

Vrijwilligers | Zwembad Meekenesch

Zoals bijna iedereen wel weet wordt zwembad Meekenesch gerund met vrijwilligers en daar zijn we heel erg trots op. Al voordat we het zwembad overnamen waren er vrijwilligers actief om hun EHBO, BHV en/of reddend zwemmen diploma te halen, of om te timmer...



eenvandaag.avrotros.nl

Hoe het dit zwembad lukt om op vrijwilligers te blijven draaien, ondanks het grote tekort: 'Iedereen is hier even belangrijk'

In een tijd waarin veel vrijwilligerorganisaties worstelen met het vinden van voldoende mensen, slaagt zwembad De Groene Jager erin met liefst 200 vrijwilligers te blijven draaien. "Na een drukke dag rijd ik met een glimlach naar huis."



Vrijwilligers houden openluchtbad in Uitgeest draaiende: "Hele jeugd hier doorgebracht"

Vrijwilligers houden openluchtbad in Uitgeest draaiende: "Hele jeugd hier doorgebracht"

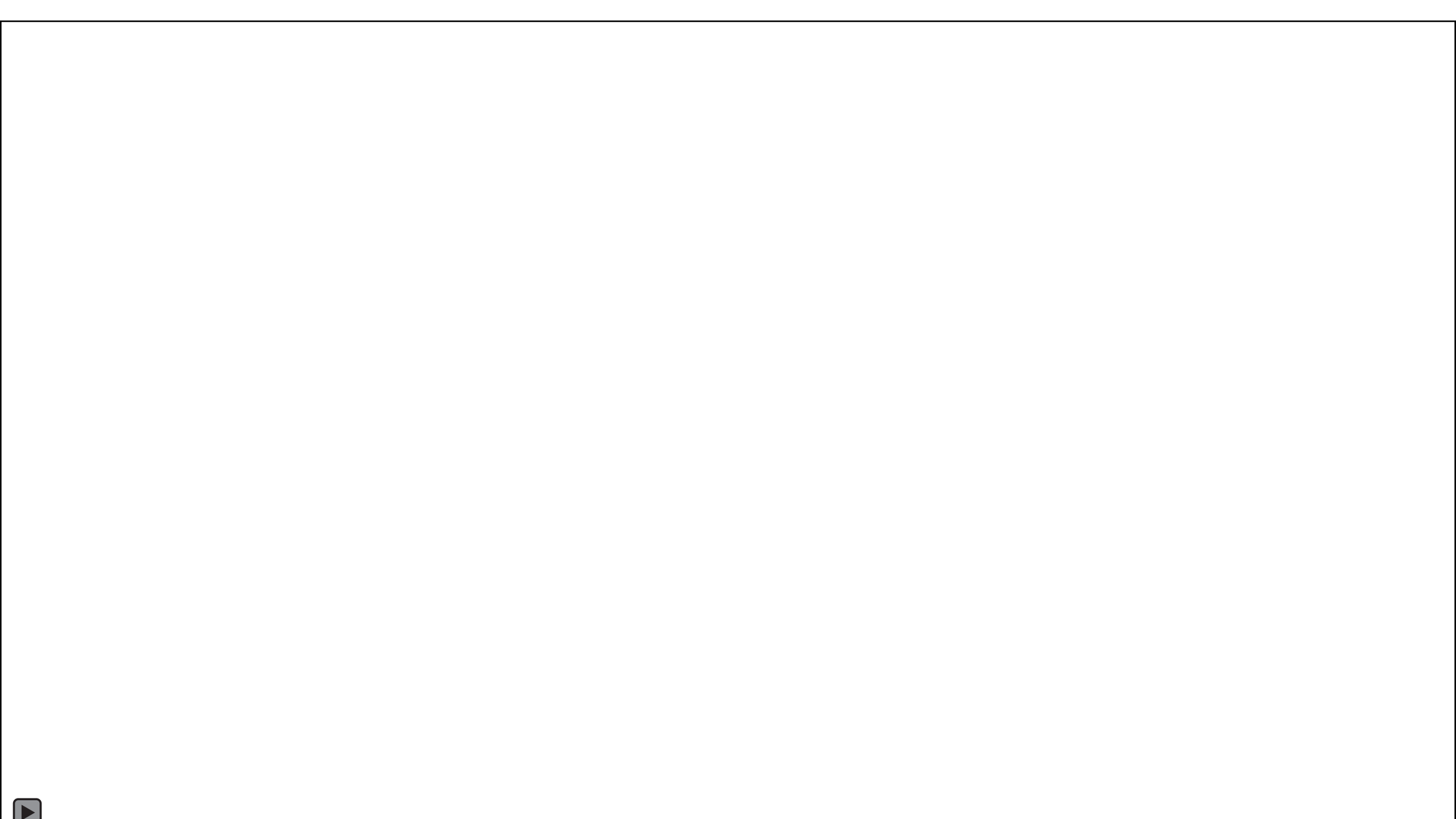




Design Concept challenges

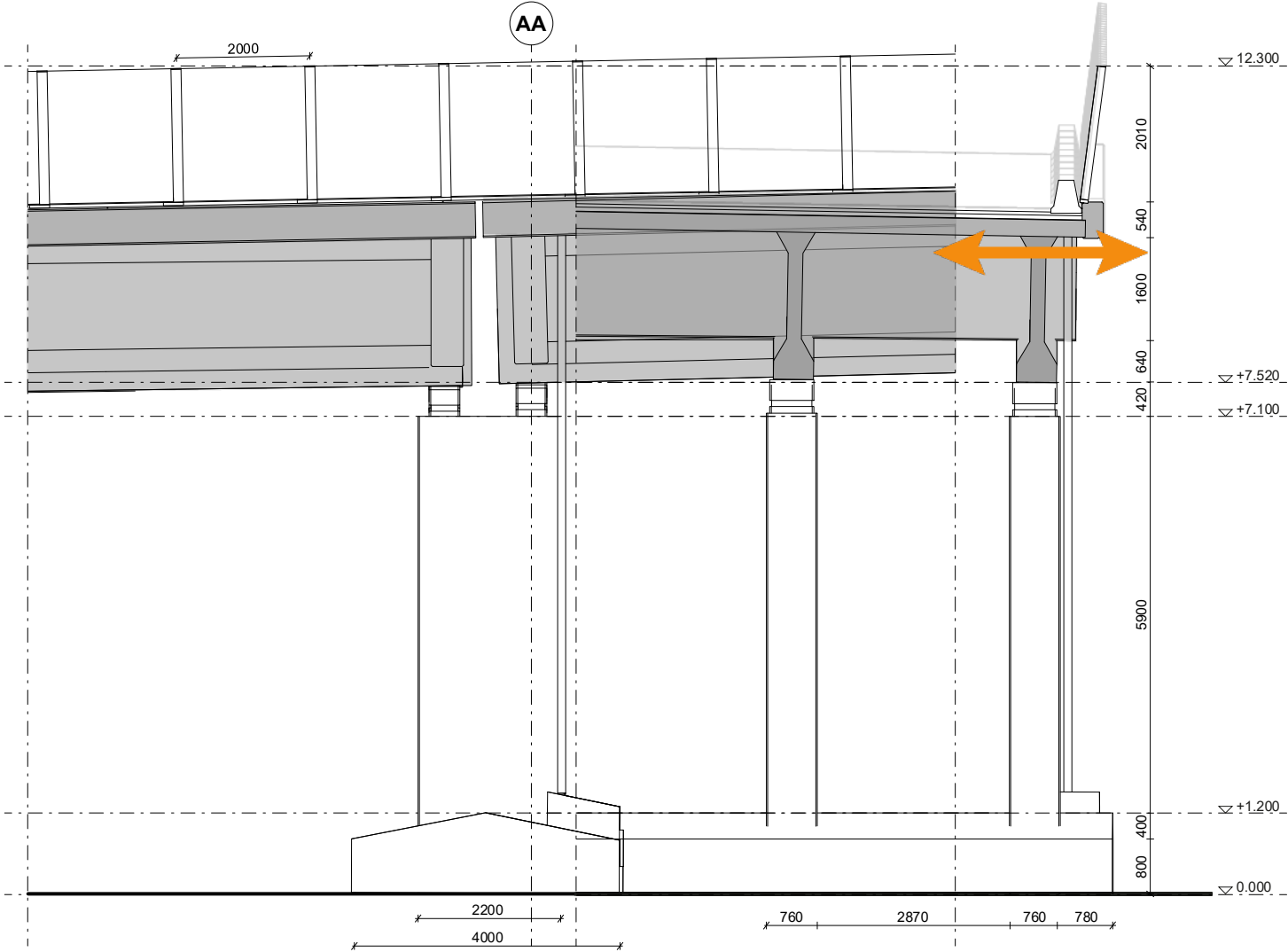
Bridge movement





Design Concept challenges

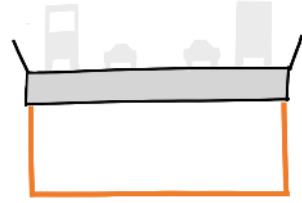
Bridge movement



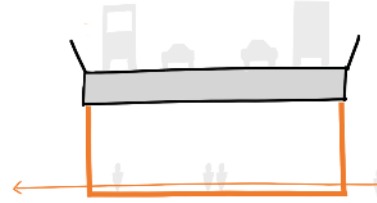
Design Concept challenges

Bridge Design Guidelines

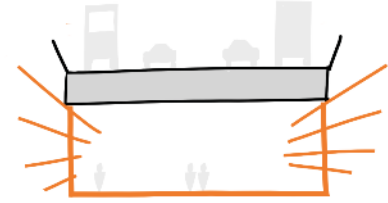
1. Leverage the Existing Structure as a Roof



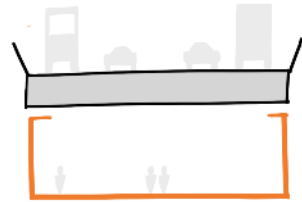
2. Reintegrate the Urban Fabric



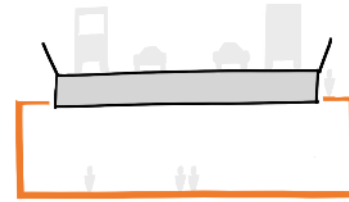
3. Ensure Day and Night Safety and Comfort



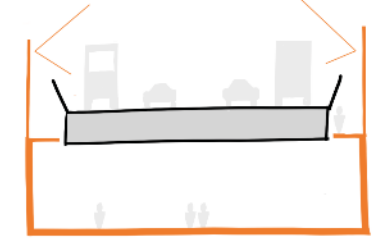
4. Maintain Structural Independence



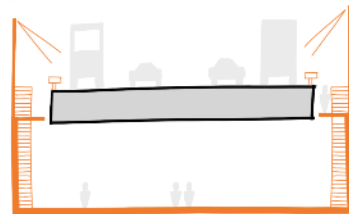
5. Facilitate and Improve Maintenance Accessibility



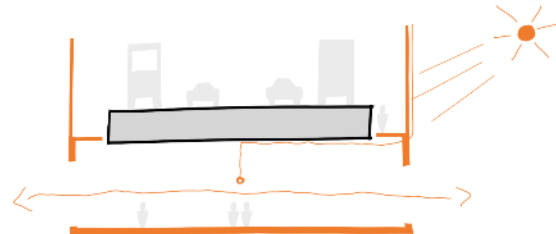
6. Mitigate Noise Pollution



7. Enhance Road Safety Integration



8. Create Broader Environmental and Systemic Value

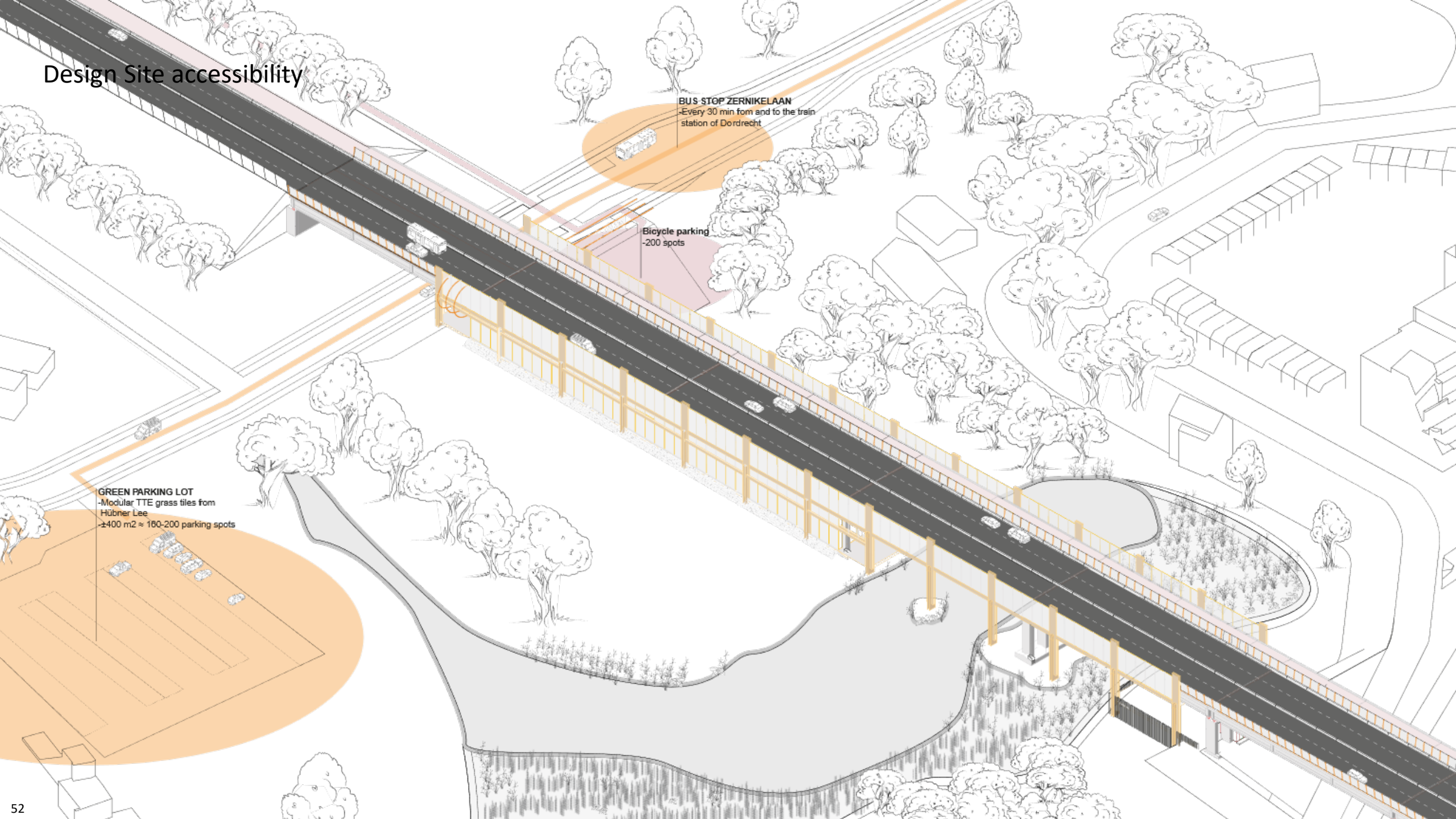


9. Design for Flexibility and Reversibility





Design Site accessibility



BUS STOP ZERNIKELAAN
-Every 30 min fom and to the train station of Dordrecht

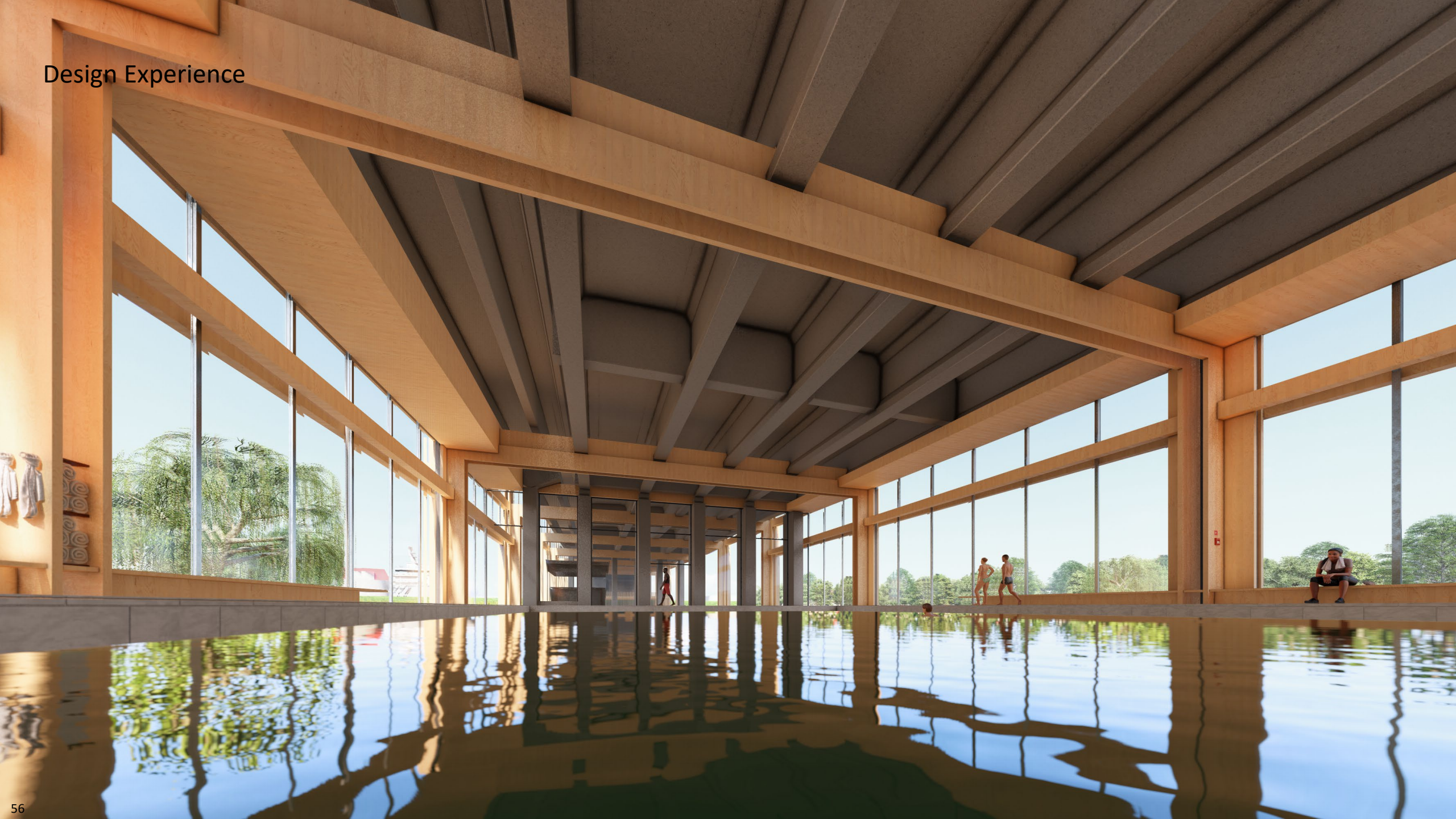
Bicycle parking
-200 spots

GREEN PARKING LOT
-Modular TTE grass tiles from Hübner Lee
-±400 m2 ≈ 160-200 parking spots











Design Experience







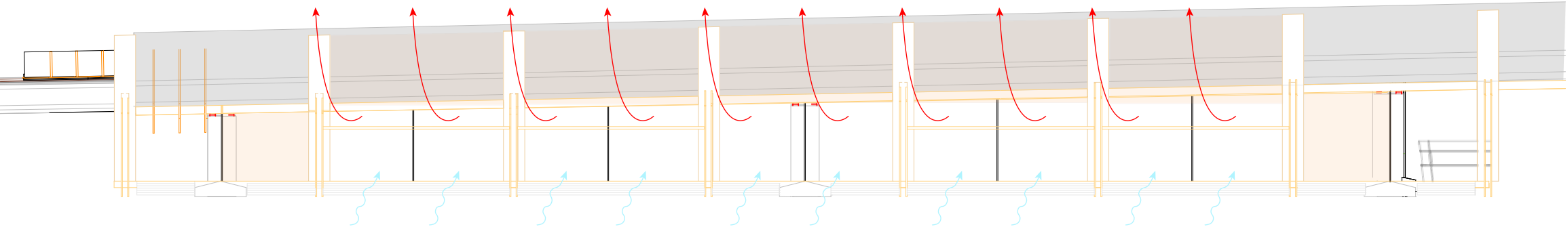
Design Experience



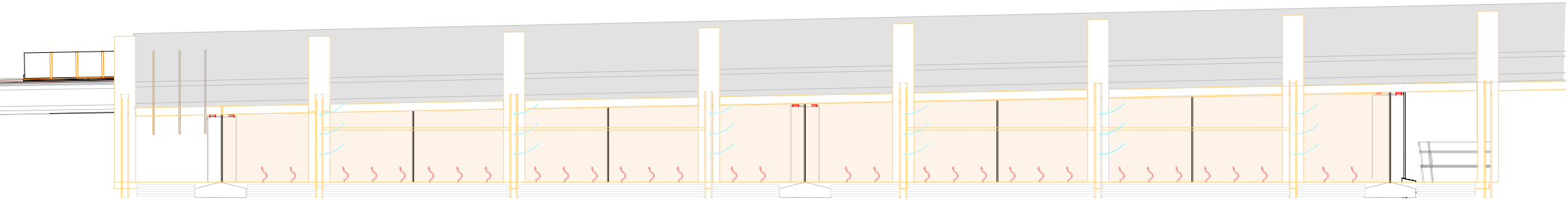


Design Climate schemes

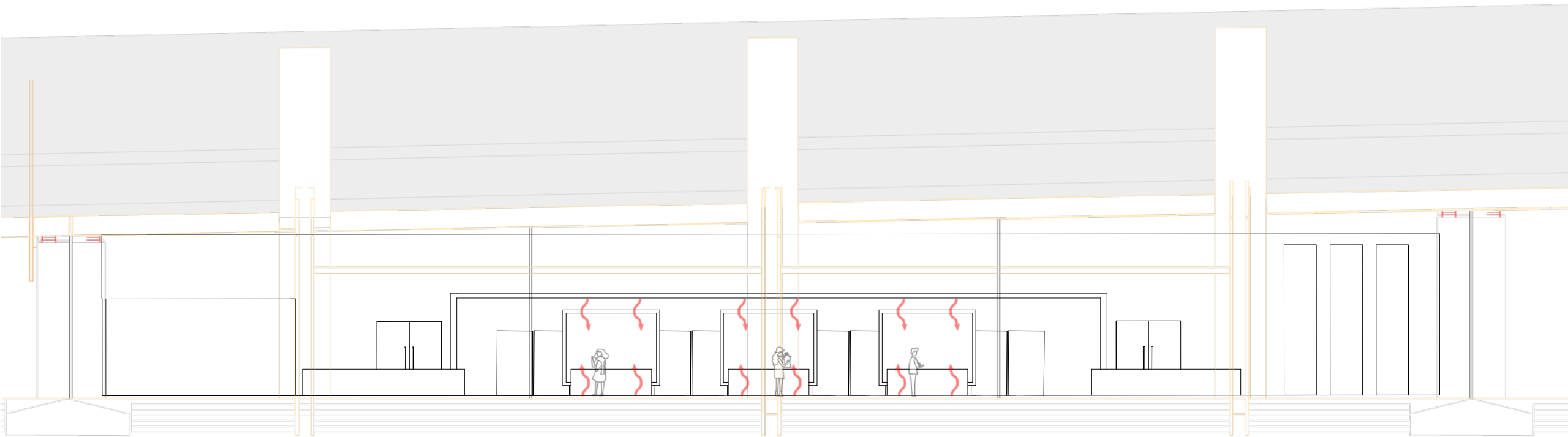
Summer/Spring
scheme



Winter/Autumn
scheme



Design Controlling microclimates





























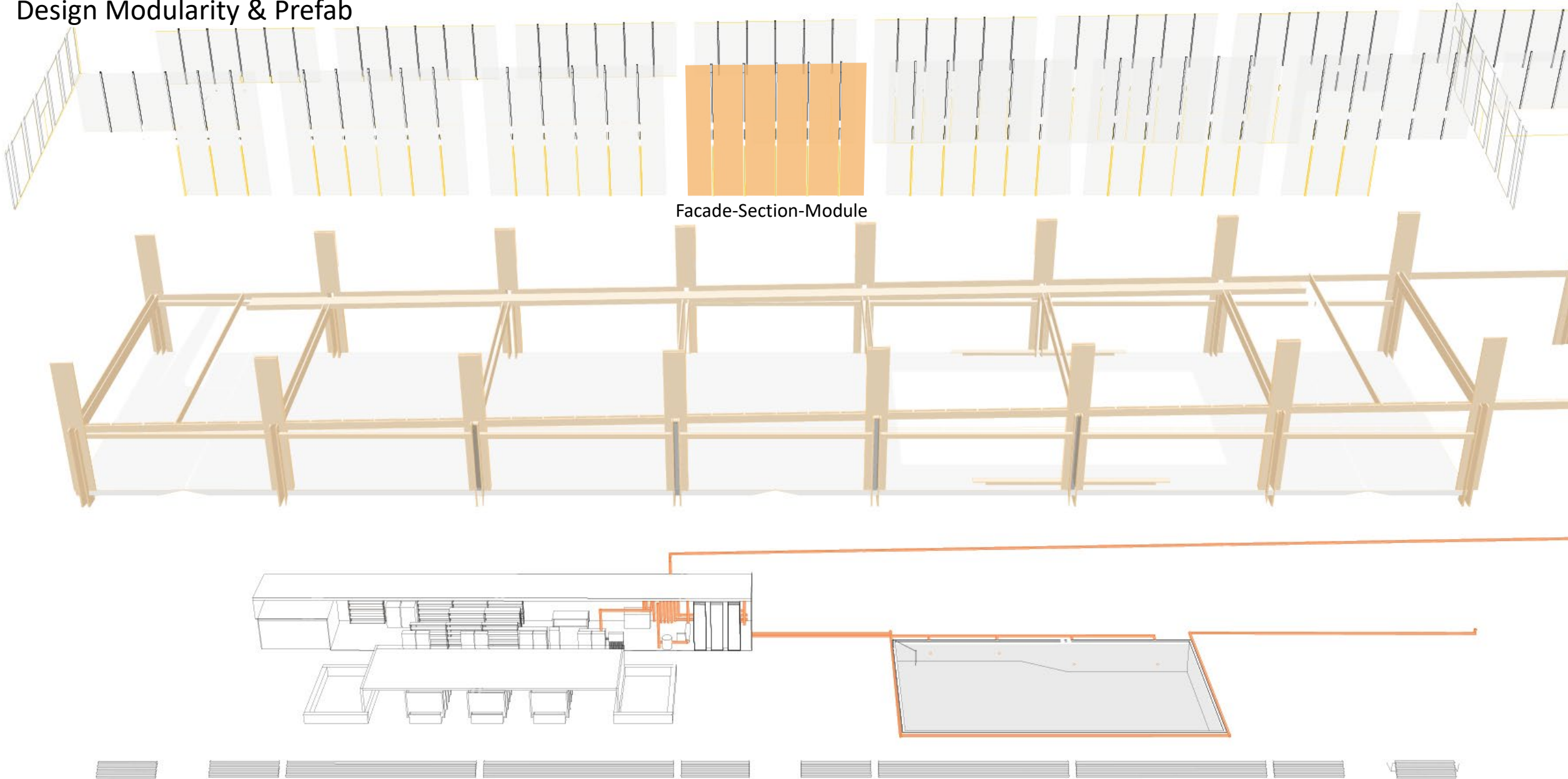
Design Modularity & Prefab



Design Modularity & Prefab



Design Modularity & Prefab



Design Modularity & Prefab

Face
FSM



Design Modularity & Prefab

Face
FSM



Design Modularity & Prefab

Face
FSM



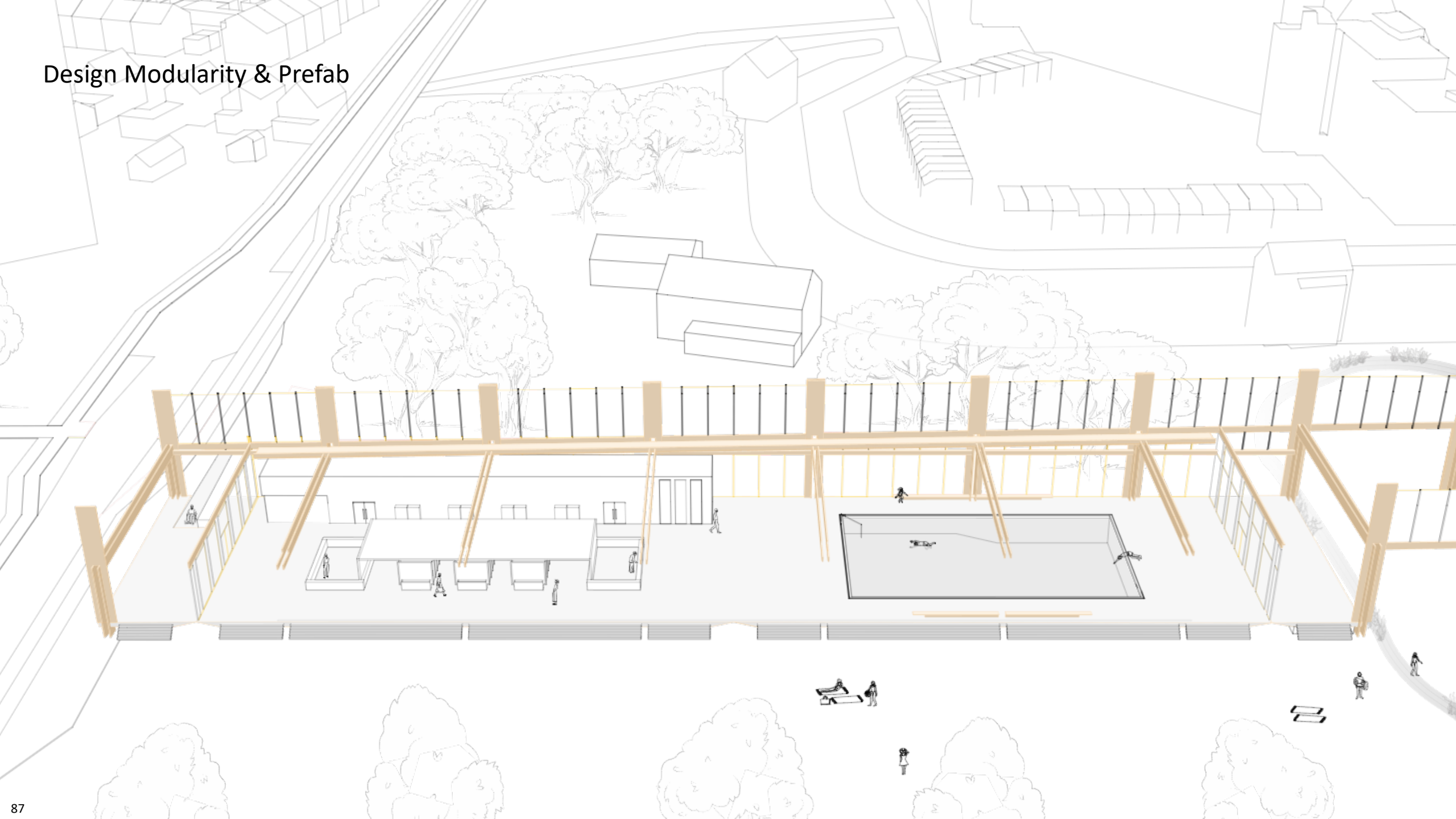
Design Modularity & Prefab

Face
FSM

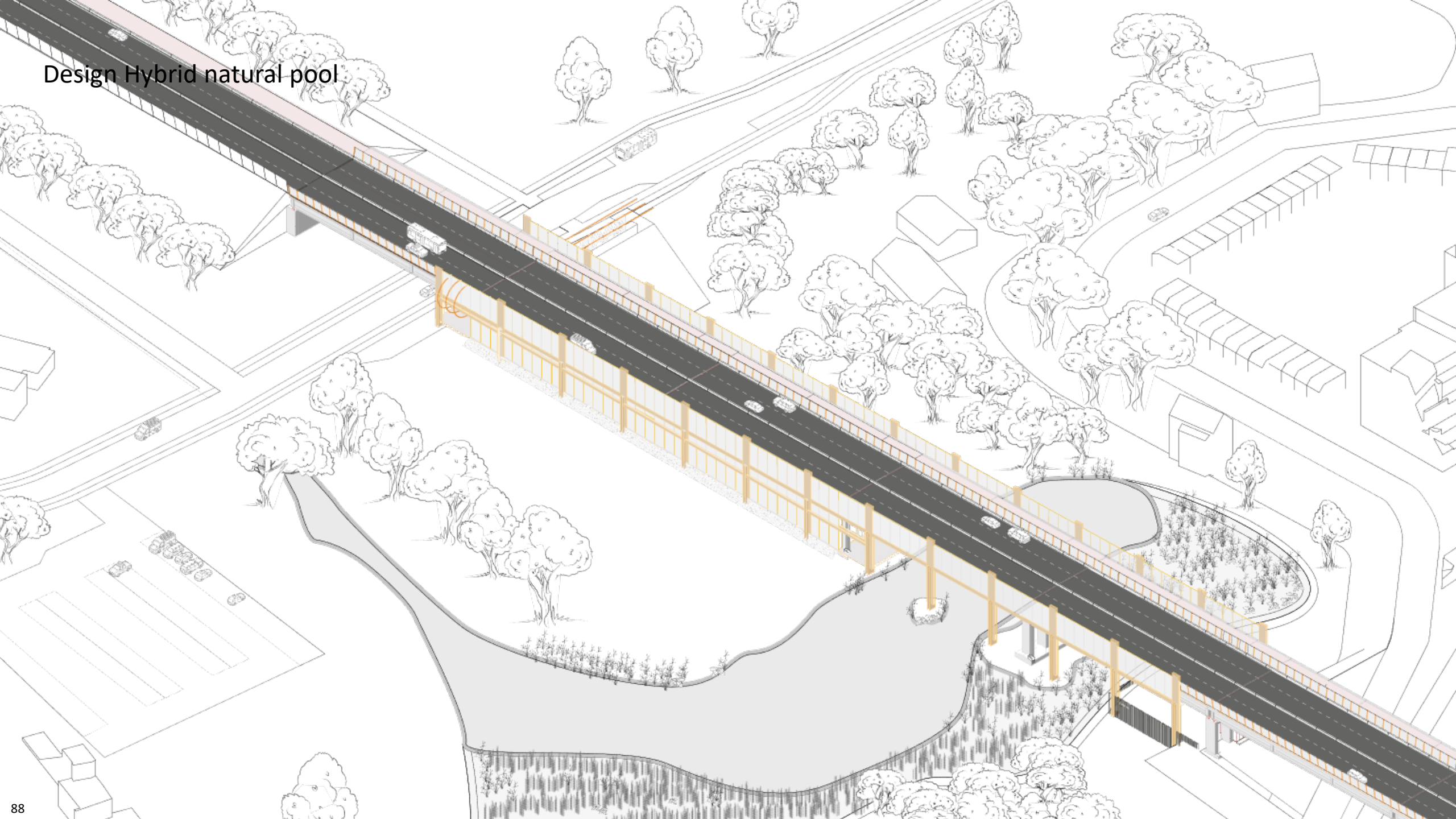
- FFF(22
- FMP
- FSP
- FUF
- FLF
- FGF
- FUFC
- FLFC
- FSMU



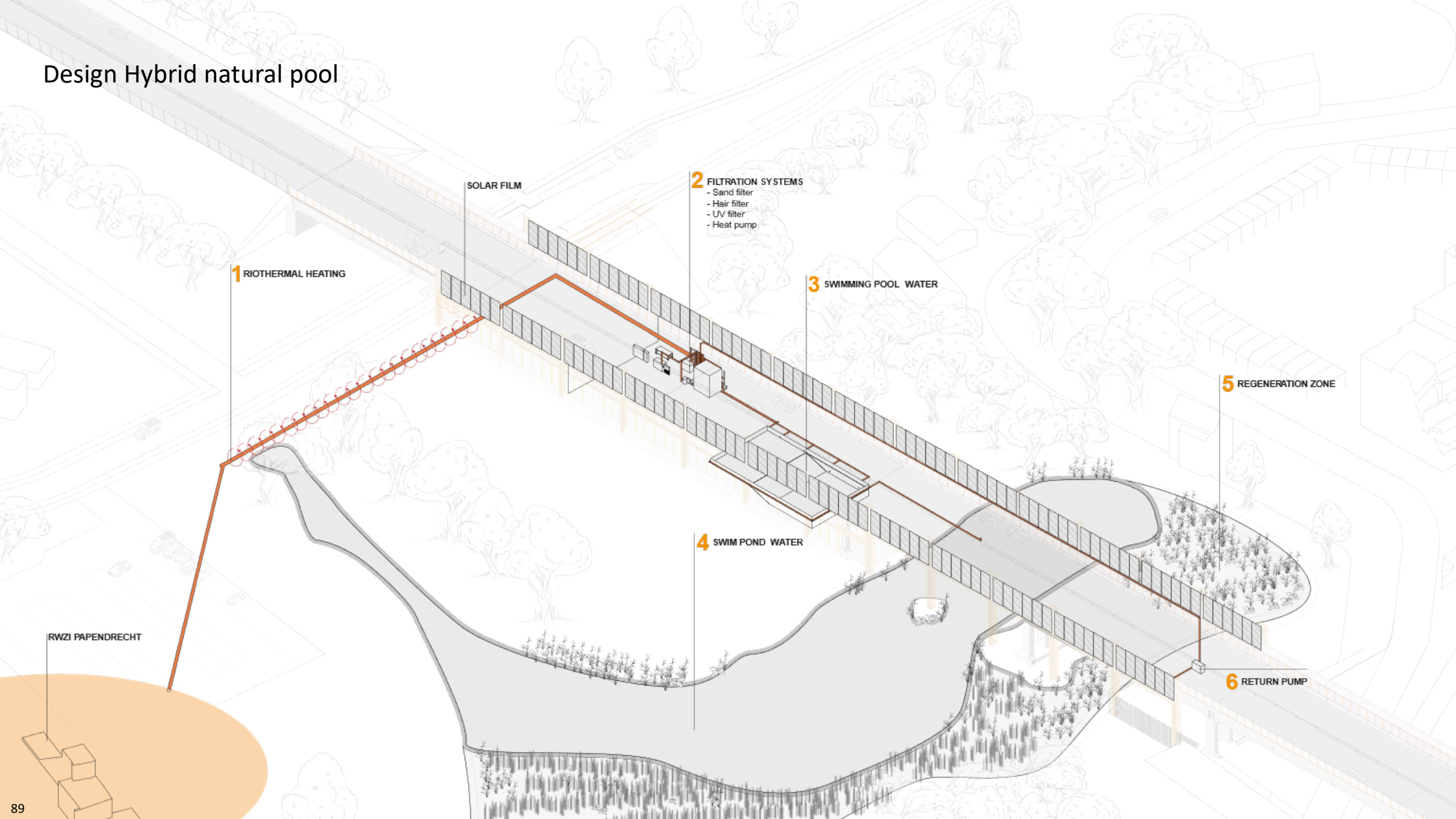
Design Modularity & Prefab



Design Hybrid natural pool



Design Hybrid natural pool



Design Hybrid natural pool

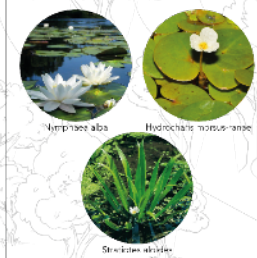
TREES ON PLOT



FAUNA



FLOATING PLANTS



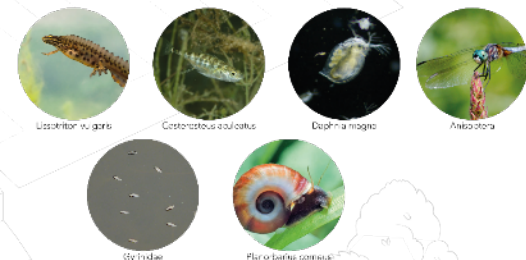
MARGINAL & MARSH PLANTS (HELOPHYTES)



SUBMERGED OXYGENATING PLANTS



WATER FAUNA





Design Experience

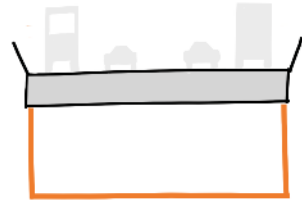




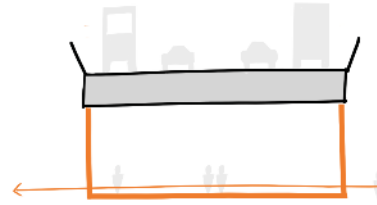
Reflection Learnings

Bridge Design Guidelines

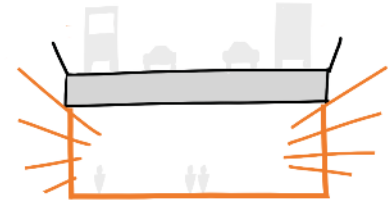
1. Leverage the Existing Structure as a Roof



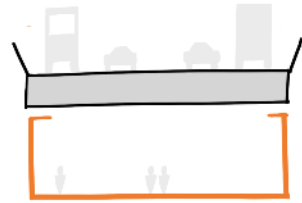
2. Reintegrate the Urban Fabric



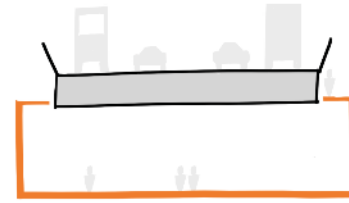
3. Ensure Day and Night Safety and Comfort



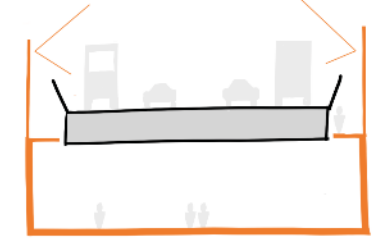
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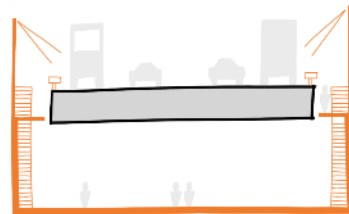
5. Facilitate and Improve Maintenance Accessibility



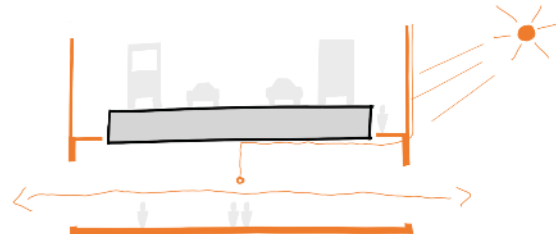
6. Mitigate Noise Pollution



7. Enhance Road Safety Integration



8. Create Broader Environmental and Systemic Value



9. Design for Flexibility and Reversibility



Reflection Community



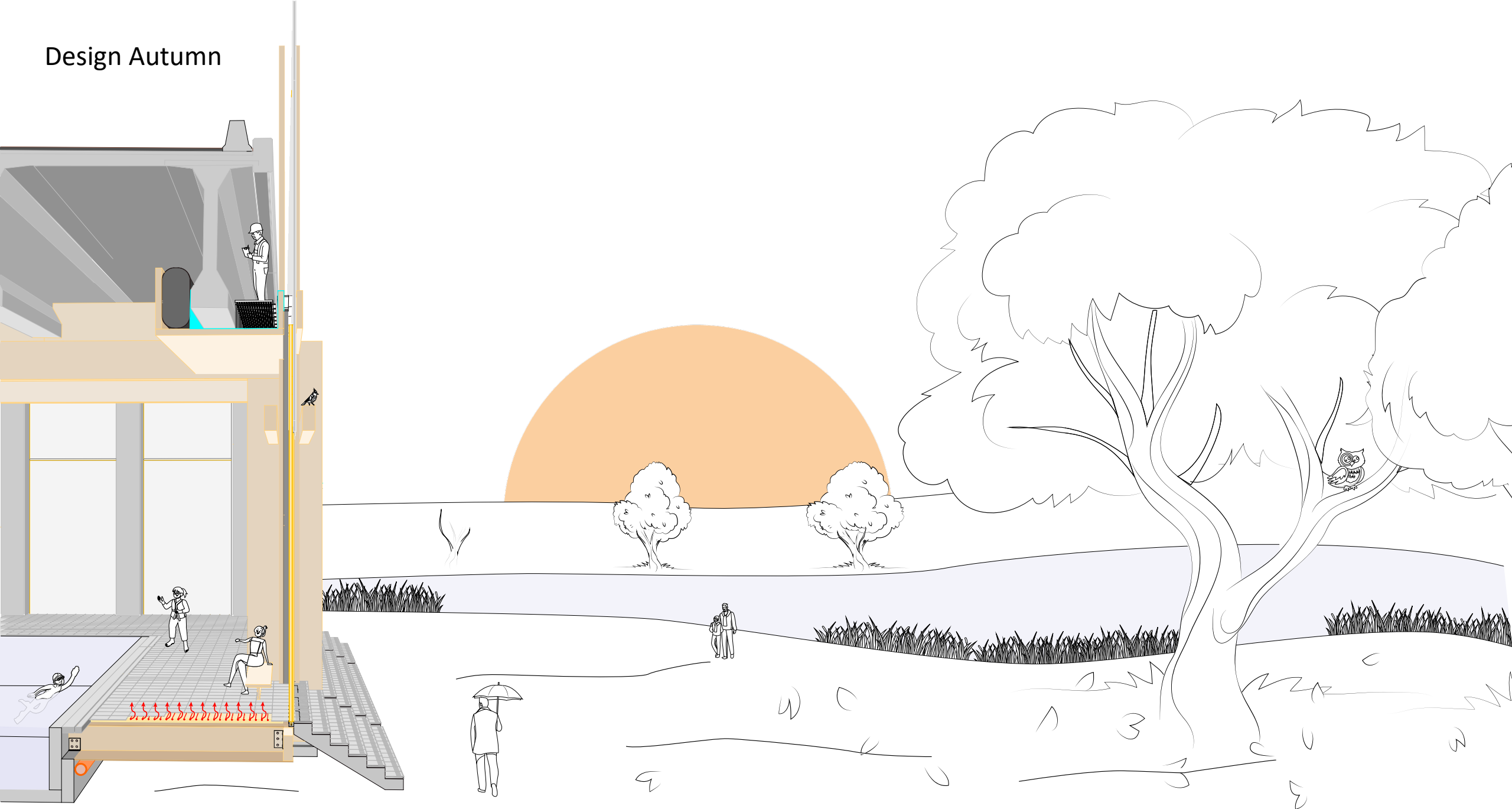
Ik meld me aan als vrijwillig
mede-beheerder



Design Summer



Design Autumn



Design Winter

