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PROJECT



Zaan Corridor

Future visions for station areas



Heerhugowaard, Castricum, Krommenie-Assendelft, Koog-Zaandijk, and Zaandam Kogerveld (The Netherlands)



AUTHORS Roberto Cavallo (TU Delft),
Manuela Triggianese (TU Delft), Hans de Boer
(TU Delft DIMI)

TYPE OF PROJECT Research by Design

YEAR 2014

PARTNERS BNA Research, TU Delft DIMI,
Province of North Holland, the municipalities
of Zaanstad, Castricum, and Heerhugowaard,
Amsterdam City Region, NS Stations,
Deltametropool Association

LOCATIONS Heerhugowaard, Castricum,
Krommenie-Assendelft, Koog-Zaandijk, and
Zaandam Kogerveld (The Netherlands)

KEYWORDS Mobility and Space, Station areas,
Urban Transitions, Urban transformations,
Densifications, Multidisciplinary projects,
Multiscalar interventions

**ALL IMAGES ARE INCLUDED IN THE
PUBLICATION ONDER WEG! UNLESS**

OTHERWISE SPECIFIED (Source: Boer, H. de,
Boomen, T. van den, Chorus, P., Hinterleitner, J., 2014)

INTRODUCTION

Reimagining the Zaan Corridor

This project aimed to provide new insights into how mobility infrastructures can be better linked to current travel demands IN their urban context. The ensuing challenges and opportunities were investigated in a laboratory setting, without actual clients or contractors, but with the involvement of stakeholders. This interplay among the various participants was important at the beginning of the project; scenarios were envisioned that generated concrete contributions and ideas, enabling the project team to develop the future urban agenda for the case of the Zaan Corridor.

The point of departure for the Zaan Corridor project is the question of where a large number of homes can be added in and around the city of Amsterdam. Many people wish to live in attractive urban environments that are easily accessible and have all the amenities within reach. For these reasons, and in order to avoid increasing vehicular traffic congestion, the project elaborates on the spatial opportunities around five railway station locations along the railway route from Amsterdam to Heerhugowaard, named the ‘Zaan Corridor’. Following the initiative of several partners, ten professional design teams and five student teams from the Faculty of Architecture & the Built Environment, Delft University of Technology, worked on future visions and solution-oriented scenarios for the five station locations mentioned, informed by the Transit-Oriented Development (TOD) approach.

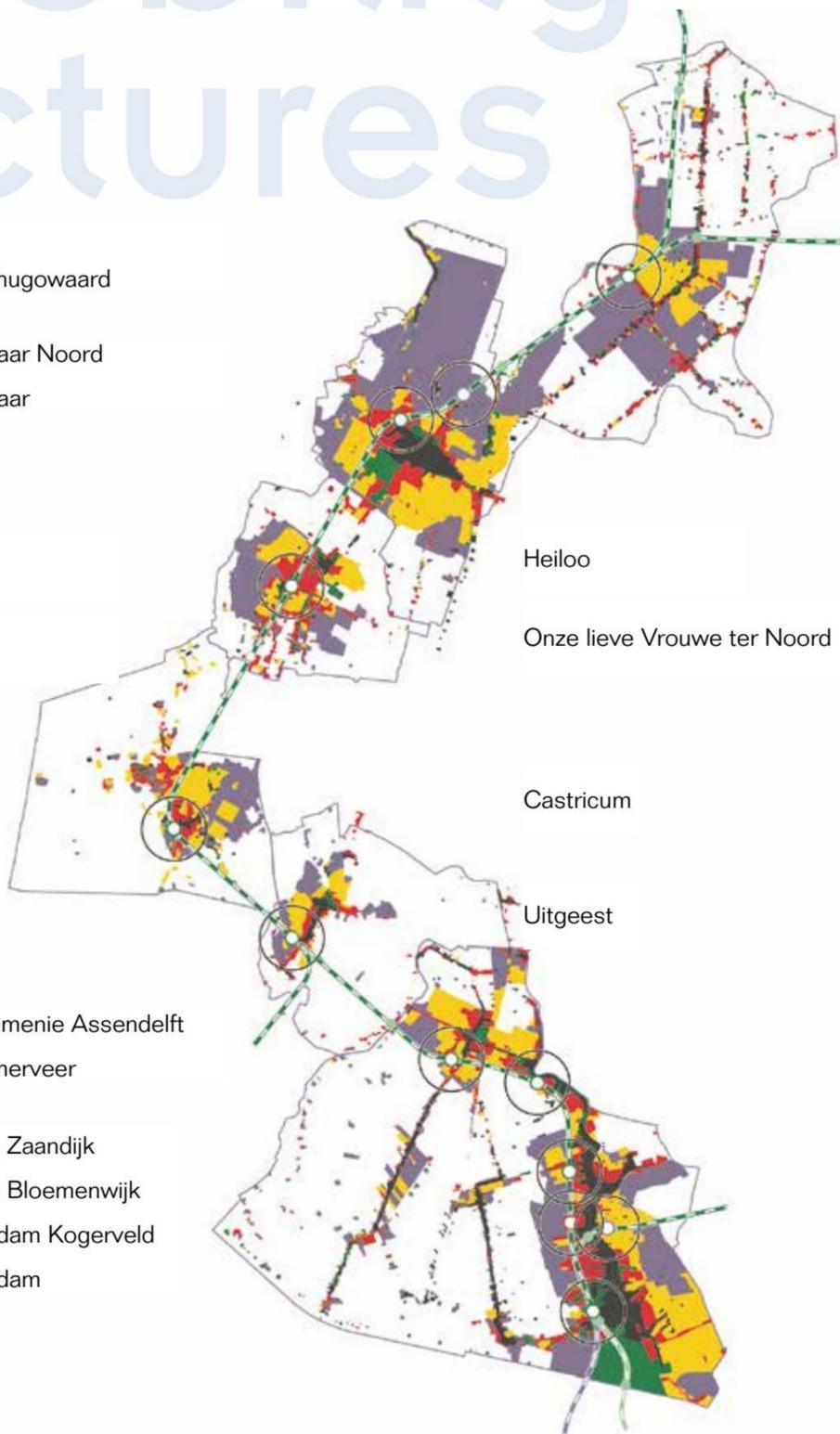
Leveraging the design proposals, the results of this study clarified the specific tasks for each location, visualising the relationship between these tasks and outlining possible solutions. Interconnecting tasks and spatial aspects generate new insights while improving communication with relevant stakeholders, residents of the specific locations, and travellers to the stations. In addition to creating the groundwork for follow-up discussions and concrete intervention plans, the project culminated in the insightful book *Onder Weg!*

mobility pictures

Heerhugowaard

Alkmaar Noord

Alkmaar



Krommenie Assendelft

Wormerveer

Koog Zaandijk

Koog Bloemenwijk

Zaandam Kogerveld

Zaandam

Zaan Corridor in 2000 (Source: Engel, H. et al.)



Railway crossing in Heerhugowaard (Theo Baart)



Castricum railway station (Theo Baart)

CONTRIBUTORS TO THE PROJECT

TU Delft, TU Delft DIMI (Delft Deltas, Infrastructures & Mobility Initiative), BNA Research, Province of North Holland, Deltametropool Association, NS Stations, Municipality of Amsterdam, Municipality of Zaanstad, Municipality of Castricum, Municipality of Heerhugowaard, Stegerwald Designs, Antenna-Men, M3H Architecten, HOSPER landschapsarchitectuur en stedenbouw, Carmela Bogman vormgeving in de openbare ruimte, Remco Rolvink Spatial Strategies, architectuurstudio HH (AHH), NOAHH, temp.architecture, van Paridon x de Groot landschapsarchitecten, Royal Haskoning, DHV, Jorna Advies, Stephan Schagen, Dingeman Deijs, Eric Klarenbeek, Maartje Dros, Knevel Architecten, DS landschapsarchitecten, Paul Baartmans, Groen Licht Verkeersadviezen, Venhoeven CS architecture & urbanism, Arcadis, René Kuiken Urbanism, Anik See, Korth tielens architecten, Lodewijk Baljon landschapsarchitecten, TNO Smart Mobility, Nunc architecten, Artomic, Nieuwbruut, Goudappel Coffeng, XVW architectuur, Ruimtelijk Plan, Buro Bol, Movin, Joost Körver architect, Architectenbureau Micha de Haas, Bespoke Stedelijke Ontwikkeling, Delva Landscape Architects, Goudappel Coffeng, Zwarts & Jansma Architects, Michel Heesen architecture & landscape design, Grontmij



Zaan Corridor and Heerhugowaard in the Amsterdam Metropolitan Region in the year 2065 (Team Venhoeven CS, MRA- Heerhugowaard)



Castricum (Team Knevel Architecten, *Landscape Oriented Developmen*)

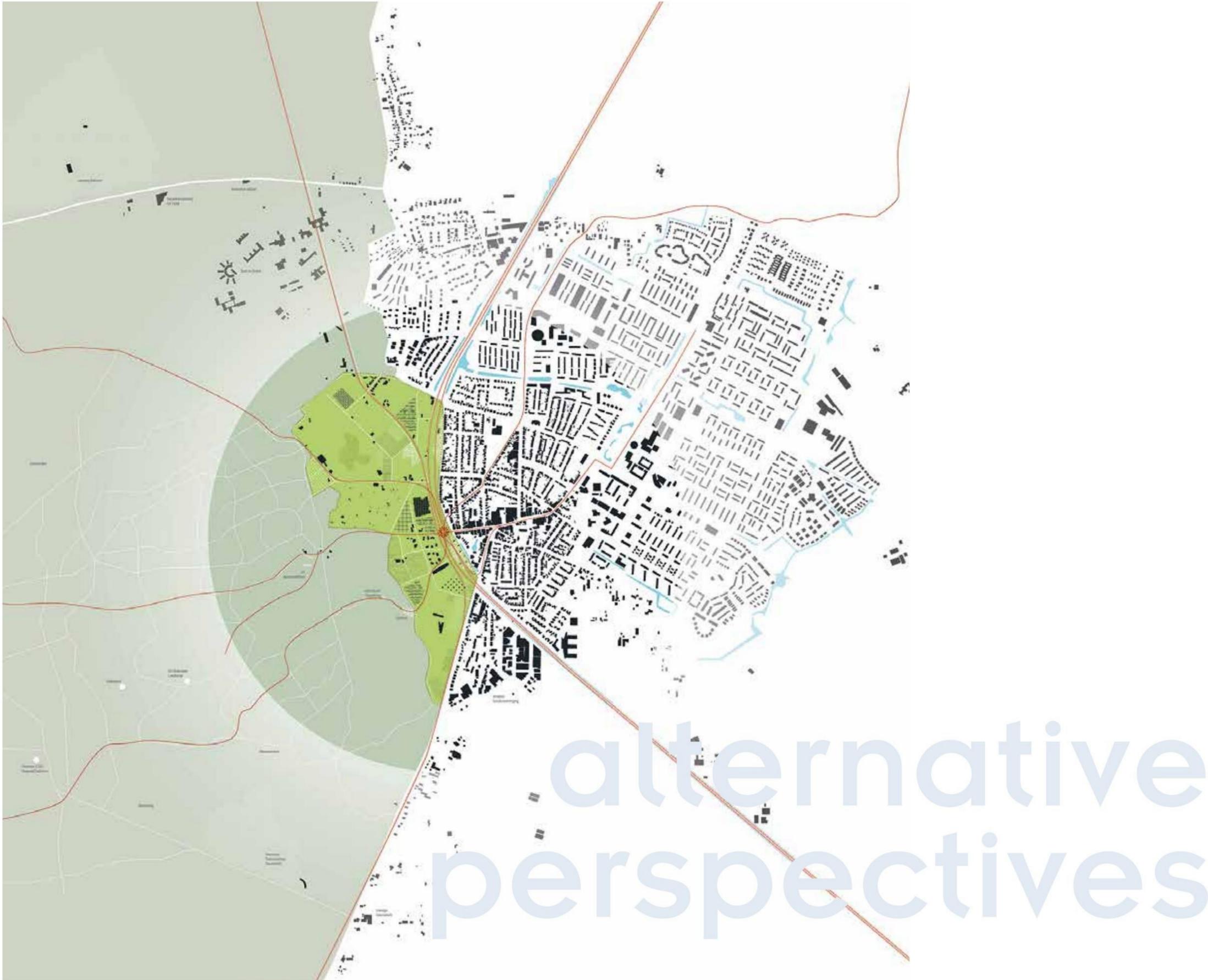
PROJECT RESULTS

Integrating mobility and urban design

This study builds on the results of the study *Maak Plaats* (Vereniging Deltametropool, 2013) (in English: 'Make Place') which clearly illustrated the potential of the Zaan Corridor and its public transportation nodes. Since that time, the reality has been that the use of cars has gained prominence in this area, and railway stations have been stripped down and increasingly difficult to reach by public transportation. Moving away from the typical misconceptions regarding Transport-Oriented Development (TOD), such as being synonymous with monofunctional urban areas or being associated only with new developments, the focus here shifts toward better utilisation of the existing railway infrastructure network and the spaces surrounding the stations, with the aim of attracting more users throughout the entire metropolitan region. However, this project also addresses other challenges. Historically, spatial developments, transport, and infrastructure have predominantly been the domains of planners, transport experts, and civil engineers. As the ambition of TOD is to enhance the spatial qualities of the station area and create new opportunities for the Zaan Corridor, the pertinent question is: why not involve urban designers, architects, landscape architects, or even artists?

To transform the Zaan Corridor into a connecting mobility link within the Amsterdam Metropolitan Area and a nexus for metropolitan spatial developments, designs are indispensable. These designs should offer insights that facilitate connections between matters at different scale levels. In addition to generating ideas for the five specific station areas based on their unique qualities and contextual locations, the design studies in this project have produced compelling visions for the Zaan Corridor as a whole. These visions highlight potential concentration areas for housing developments, such as Zaanstad and Heerhugowaard/Alkmaar, and opportunities for the slow and leisure-related use of existing traffic routes by integrating public transportation with spatial transformations.

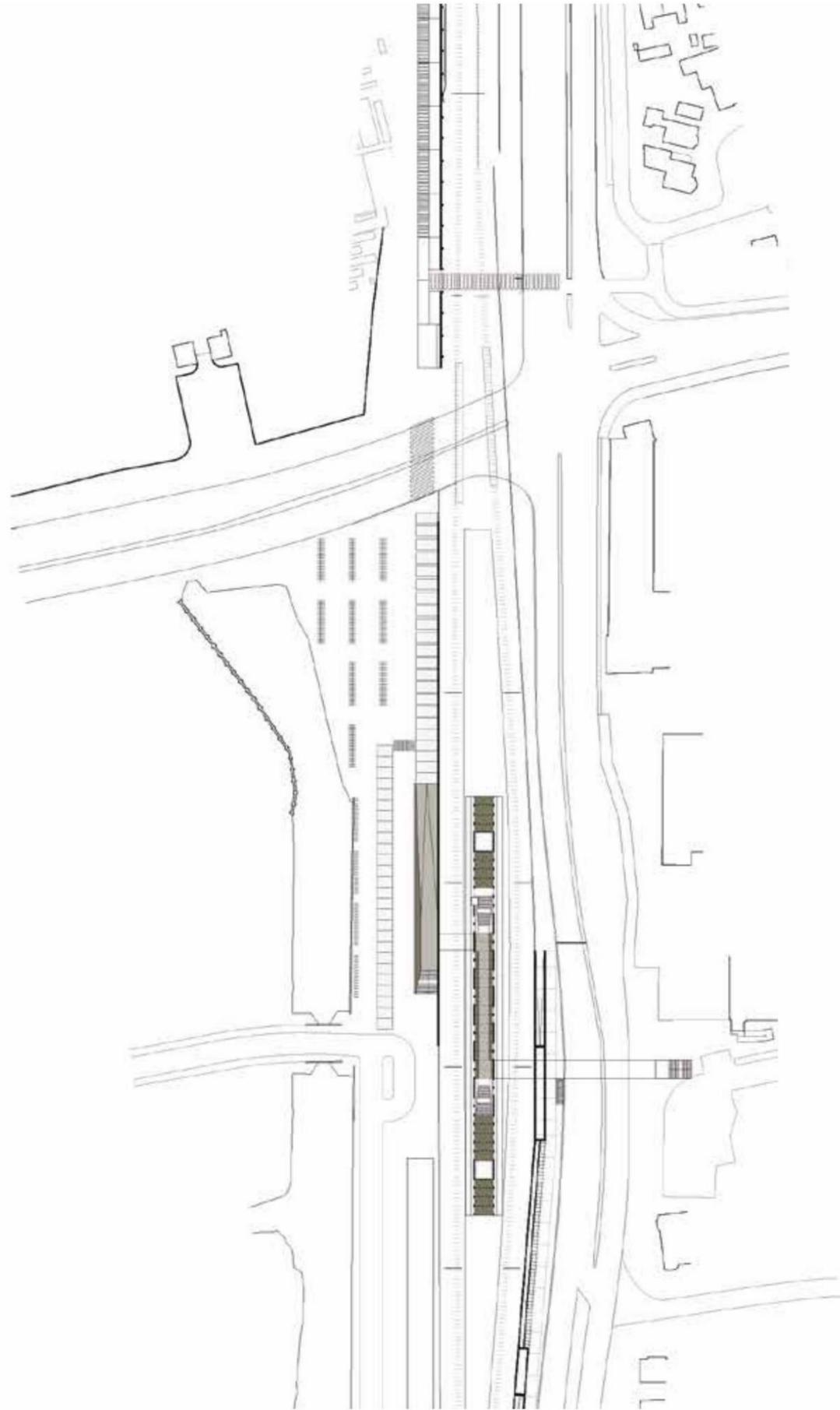
What can be discerned from the proposals of the various design teams? Were there common denominators or new opportunities not identified before this study? Are there alternative perspectives that warrant further consideration? When examining these five railway stations, some recurring challenges pop up, such as their awkward accessibility for slow traffic, the barrier effect created by the railway in conjunction with the provincial road and the station itself, a lack of identity in the station and station area, and the near absence



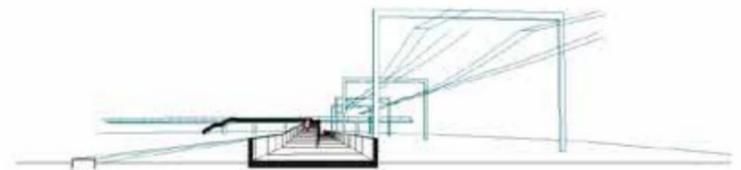
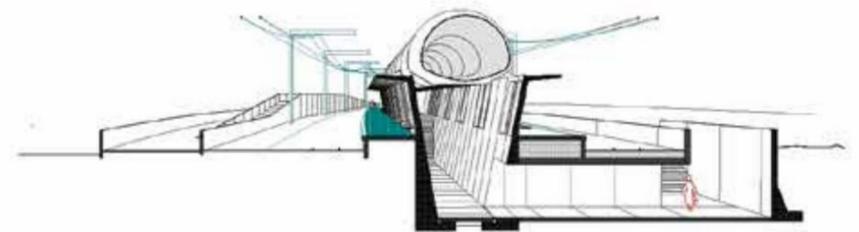
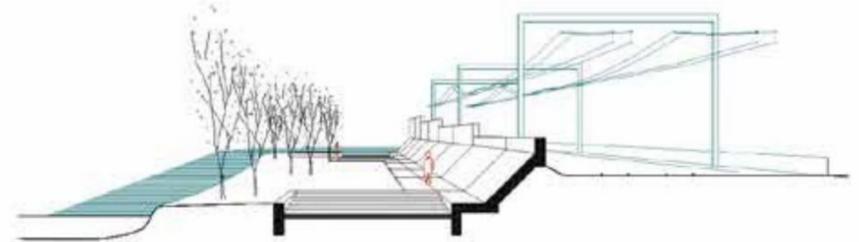
Castricum (Team Knevel Architecten, *Landscape Oriented Development*)

of other urban programmes. Consequently, the design teams have envisioned improved routing to the stations, considering spatial enhancements that could simultaneously elevate the user experience and enrich the station's identity concerning the specific location's recreational, tourism, and economic values.

However, there are also challenges at the level of the Zaan Corridor as a whole: activating sufficient passengers to induce a higher frequency of service; meeting the growing housing need around station locations; differentiating the locations by adding complementary programmes; and creating a



Sections, from north (top) to south (bottom)



Koog-Zaandijk (Team TU Delft students, Andrew Hollands, David Bravo Villafranca, *Het Artefact*)

new spatial
contradictions



Station Heerhugowaard (Team Architectuurstudio HH -NOAHH, *Fields of Chances*)

Krommenie Assendelft (Team Anik See Korth Tielens Architecten, *Park Assenie*)

counterpoint from Amsterdam to the various stations. In response to these issues, the design teams proposed the following strategies and solutions: rethinking the ‘Sprinter’ train services (a Sprinter stops at every station) in combination with alternative public transport options; concentrating housing development in the larger municipalities; and introducing the tailor-made exploitation of the existing recreational, tourist and economic potential.

The teams adopted a Research by Design approach, which was implemented in the following way. The given assignments for each station location served as the starting points for the multidisciplinary teams, which focused on researching and mapping each issue to formulate critical responses through designs. The first cycle of visualised proposals was not primarily intended to find solutions to the given assignments, but

to problematise them, thereby establishing a solid basis for communication to achieve a degree of consensus among the various stakeholders. This approach was efficient, as evidenced by the teams’ final design proposals, which showcased a diverse range of effective strategies addressing multiple scale levels at the same time. On the scale of the individual stations, each design clarifies and elaborates on the specific assignments for that station; on the scale of the Corridor as a whole, all designs together clarify the relationships between several stations, their challenges, and possible solution pathways. The *Onder Weg!* publication brings forward and highlights the themes, illustrating the design proposals formulated by the professional teams and the students, and outlines the intervention strategies for the short-term (2014 – 2020), medium-term (2035), and long-term (2065).

EVALUATION

Research-driven design process

The combination of a laboratory setting, multi-disciplinary set-up of the teams, and adoption of Research by Design as a working approach has proved to be very successful. Next to the remarkable results in terms of content, this project is an important contribution toward the establishment of integrated collaborative encounters among the various disciplines, stakeholders, and institutions that are usually involved in such complex processes but usually do not work together in such a manner. In that respect, this project has paved the way for a series of similar initiatives, the most salient ones documented in this volume. The multidisciplinary composition of the design teams, the involvement of stakeholders (see the list of partners) from the beginning, and the absence of specific clients, investors, or contractors, provided the best conditions to actually search together for the most striking challenges that were linked with the assignments. Design contributes to clarifying and disclosing the project steps, and the imaginative power of drawings helps to steer the communication between the experts. These are the reasons why this way of designing can be considered research driven, because the team is using design to problematise the issues at stake, in order to frame a shared pathway of actions.

Articulating design positions

The core work of the project involved contributing to, and integrating research and education activities at TU Delft. The transformations that the project instigated resulted in new spatial conditions at several scale levels, from regional to urban territories to the scale of individual buildings. Furthermore, as the reciprocity between infrastructure and the urban environment demands an interdisciplinary approach, each topic should be studied not merely in relation to specific issues or matters connected to a particular case study but should be elevated to a more abstract level. This involves putting forward 'design positions' that articulate specific conceptual stances. Such is the case in the research work focusing on infrastructures

as artifacts, proposing the section as the most instructive drawing through which the variety of existing and new relationships between city and infrastructure can be examined and discussed. This interpretation has formed the basis of the design proposals developed by students at the Faculty of Architecture & the Built Environment, which have been discussed during the project and are published alongside the practitioners' work.

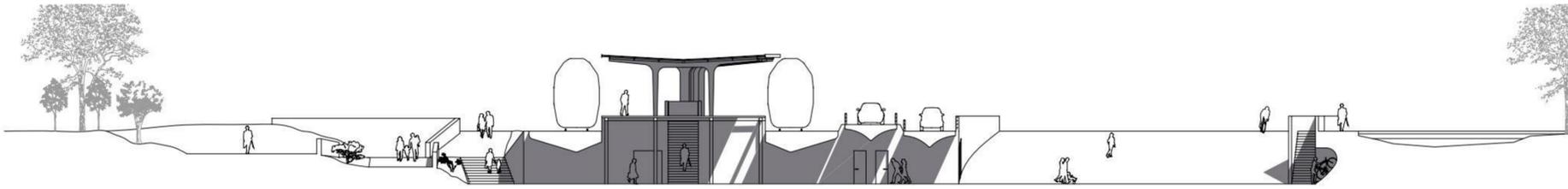
CONCLUSION

A model for future projects

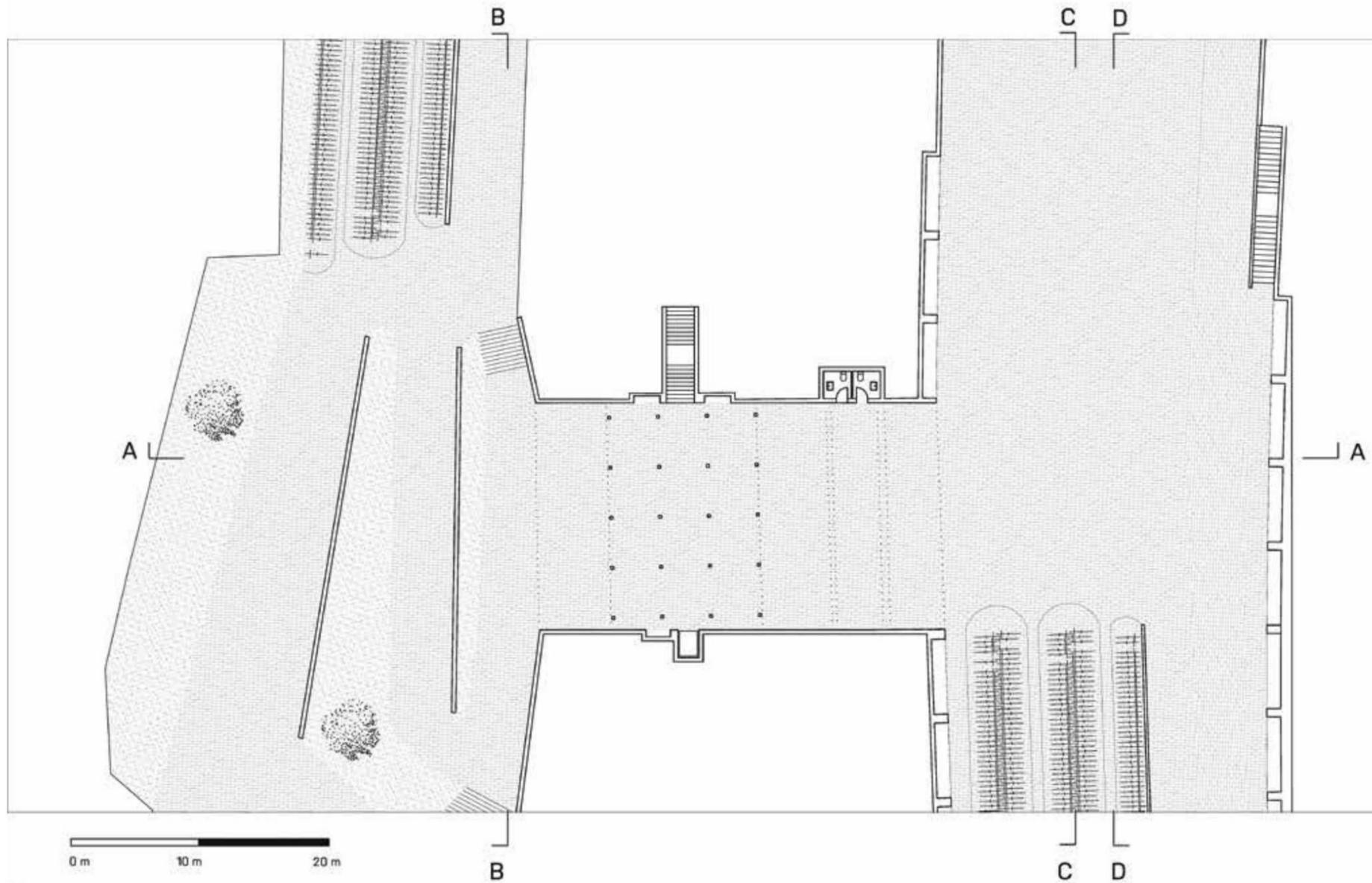
The case of the Zaan Corridor has been a Research by Design experience that methodologically inspired multidisciplinary educational Bachelor and Master courses. It comes with a well-stocked repertoire of exemplary design proposals accompanied by very convincing visual material, making them extremely suitable for purposes related to education. In terms of themes, discussions, results, and impact, this project became renowned in the Dutch research scene by linking public institutions and associations (ministries, provinces, municipalities but also Vereniging Deltametropool), large companies (Dutch Railways but also engineering firms such as Arcadis) and practitioners (via BNA). And so, it has inspired many other research initiatives in national and international frameworks, such as Stad van de Toekomst or Stad x Ruimte.

This project has laid the groundwork for a series of multidisciplinary research-by-design-driven initiatives involving BNA Research, the Ministry of Infrastructure and Water Management, Vereniging Deltametropool, several Dutch municipalities, TU Delft DIMI, and a variety of other stakeholders. Around this group of permanent partners, a community of institutions, practitioners, scientists, educators, and other interested third parties continues to grow. Finally, some of the project proposals developed within the framework of the Zaan Corridor have become distinctive works in their own right and are frequently cited or used as references, particularly because of how they articulate robust, forward-thinking ideas and concepts.

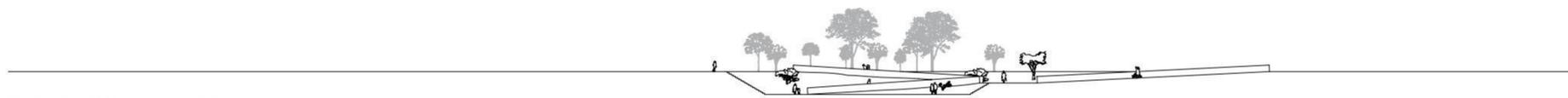
3.3.2 PROJECT Zaan Corridor



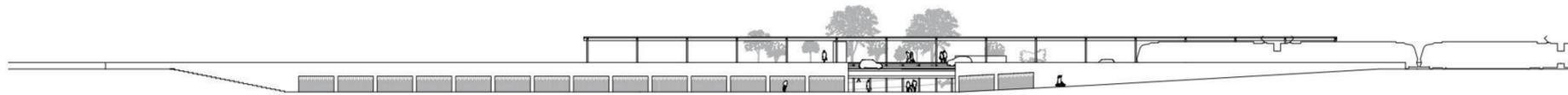
Section AA, from village to dune



Plan



Section BB, exit village side



Section CC, platform dune side



Section DD, exit dune side

Station Castricum (Team TU Delft students, Espen Eide, Laurence Gibbons, *De overgang vierer*)

Colophon

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