

PRESENTATION OF THE ASSIGNMENT



After everyone had been served rolls and coffee Myra Kremer from Waterschap Rivierenland [Rivierenland District Water Board] wished those present a warm welcome. She explained the assignment for the site in Streefkerk. She then introduced her colleagues Bram de Fockert and Geer-Jan Westerhof and, together, they answered the following questions.

QUESTIONS AND ANSWERS



There are two site categories for the dike reinforcement: “rural” and “village”. Why is this site categorised as “rural” when it is so close to the village?
The municipality decided this. Once you’ve visited the site you’ll understand why.



Who owns the site, and who will develop it?
The water board is the current owner. After the dike reinforcement work is completed the land will be sold to one or more developers.



What guarantee does the winner have of being involved in the realisation of the site?
We can’t guarantee anything. This should be seen as a pilot project, it’s about new concepts, about inspiration. Ultimately, 200 km of dike will be tackled. In the section in which the European site is located, which is eleven kilometres long, 60 homes had to be demolished. In Sliedrecht and Papendrecht, where dike reinforcement will also take place, sections of the dike are so densely built up that you can’t even see that there’s a dike there. The water board and the municipality are jointly offering the winner a platform. They will give wide publicity to the winner and the winning plan and promote both. This same problem applies in other countries as well, so there’s an international component too.



Is it the intention that a plan should be made specifically for this site, or will it be a prototype?
Actually there are no stipulations. You could design a prototype and then position it on this site.

Building IN the dike is prohibited, but the leverable foundations are also situated in the dike. So is that allowed?
Yes, because this involves rebuilding.

Development that can be levered up is mandatory. Can alternatives be proposed?
Temporary development might even be considered, because this might possibly prove more future-proof. The prescribed gutter height is four metres.



What reference level is used for measuring the gutter height? In this situation is a difference in height between the front wall and back wall conceivable?

Probably from the crest of the road.

How is the site divided up?

According to the land registry, in the present situation it is divided into seven plots, but these can be considered as one plot and re-division is conceivable.



Can the water side of the dike be developed?

No, that isn't possible, that would weaken the dike. And floating homes are not an option either. The occupants would probably be seasick due to the rocking motion of the river.

SITE VISIT



Starting at the "Vijf Lelies" community centre, the group walked along the dike towards the site. They stopped at the vacant spot on the dike at the end of Kerkstraat. This will be rebuilt, part of which by the original occupants. A climate dike, a large and robust dike, will be built on the other side of the road, in the direction of the yacht basin. This work will be carried out by the municipality together with the yacht basin, the aim being to involve the river more closely with the village.

Having reached the site more questions arose.

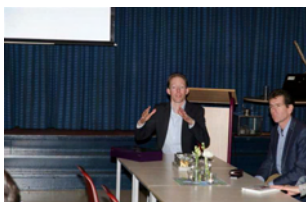


Can the trees be felled?

That would require a felling permit.

How will the work be phased?

Demolition has taken place and the dike profile is now being adapted. After that the soil has to stabilise. This site will be ready for development in 2017. Should a winning design require a different profile, this would be possible on condition that it satisfies the requirements.



Are the ditches directly connected to the river Lek?

No, they form an independent water system.

Is Streefkerk a municipality with a decreasing and ageing population?

Yes, the youngsters, in particular, are leaving. This is also why the municipality wants to give the village more standing, the joint plan with the yacht basin is part of this initiative.

The group walked back through the village to the "Vijf Lelies". Having arrived, more questions – mainly technical – arose.

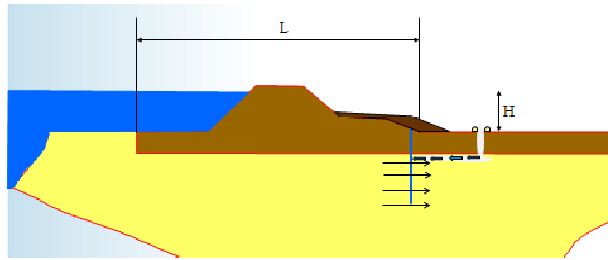


figure 1

Why do the dikes need reinforcing?

They were constructed on a 15-metre peat layer situated on top of sand. The dike itself is strong, but water seeps through underneath, pushing up the sand layer on the land side (see figure 1). This is not a “standard” dike: the pressure is not equally divided due to the profile and the dike can start “tilting over”. This explains why excavation is necessary (see figure 2). The dikes were reinforced back in the nineteen eighties, but in the meantime the water level has risen again, thus necessitating reinforcement. In the future the water level will continue to rise and another intervention is anticipated in 2065 (see figure 3).

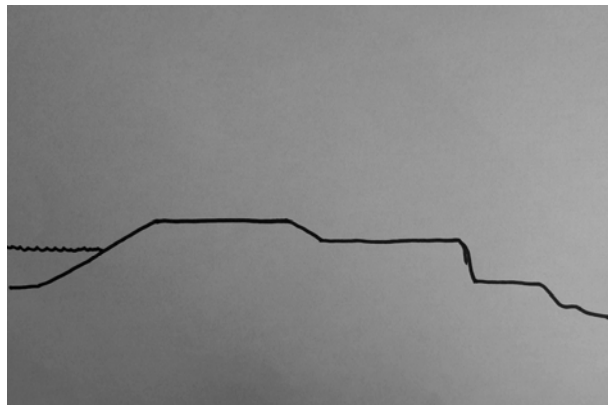


figure 2
the dike before excavation

What are the stipulations for building IN the dike?

This means that the development becomes part of the dike and that it has to comply with certain requirements to safeguard the strength of the dike.

What role do the ditches in the hinterland play in stabilising the dike?

None at all.

Can more technical data be made available, regarding the water pressure for example?

The European assignment is about a concept. The technical details come later. The water board has a great deal of technical expertise at its disposal, more than enough to contribute ideas for any new solutions.

Would it also be possible to install a water relaxation pile instead of reinforcing the dike by applying soil?

Although that is an applicable technique, at this spot too much water would have to be drained away. Earth filling is always safer.

How will the housing be accessed?

In principle, each house would have to have its own drive. However, this would lead to dangerous situations, so alternatives are welcome. Access on the land side is also conceivable, but that would probably be at the expense of the back gardens of the housing.

Will the road profile on the dike be altered?

No, the road will remain where it is and with the same road width.

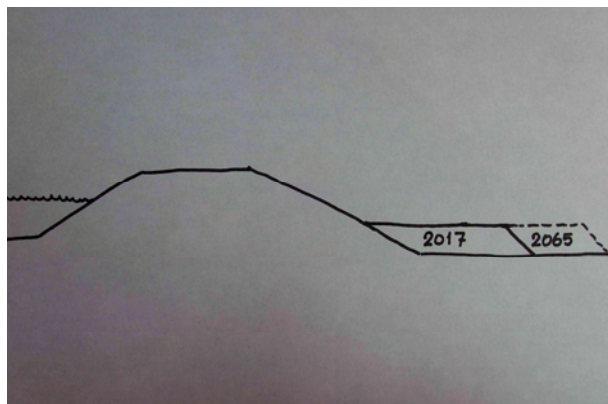


figure 3
reinforcement of the dike in 2017 and in 2065

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