

Cross-border SuDS

De Overloper, Middelburg, NL



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Associates

approaches to managing water

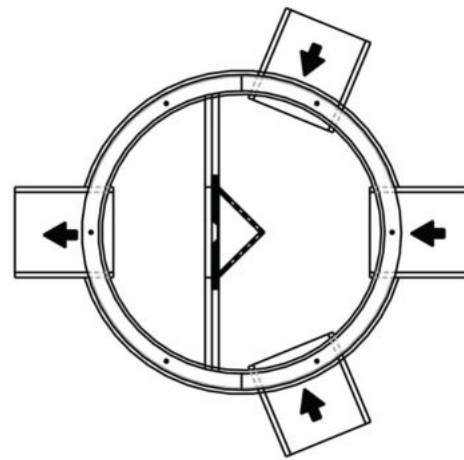
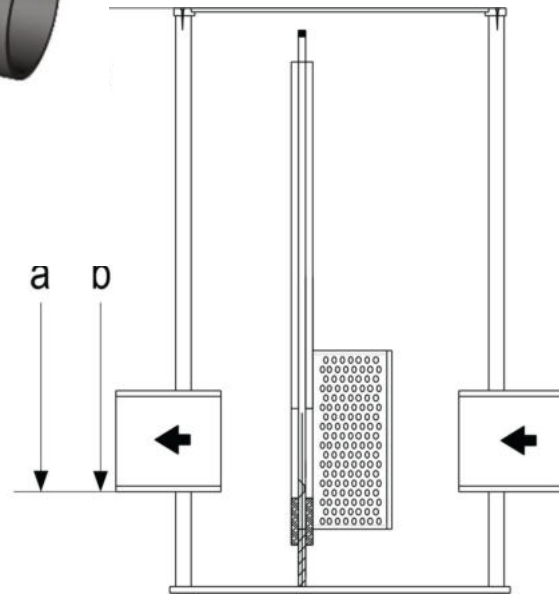












De Overloper

Water Resilient Cities: Pilot Dauwendaele



De Overloper

Water Resilient Cities: Pilot Dauwendaele

- INTERREG Water Resilient Cities project
- Gemeente Middelburg / Municipality of Middelburg
- 725m long busy cycleway & footway
- 15000m² catchment / 1500m³ (or 100mm rainfall)
- + multiple benefits to the local community



consultation

A horizontal dotted line consisting of small white dots, spanning the width of the slide near the bottom.

Hoe kunnen we het beter doen?

How can we do it better?

SUDs zijn voorzieningen die overvloedig regenwater

tijdelijk kunnen bufferen

SUDs are facilities that can temporarily buffer abundant rainwater

7. Vertraagd afvoeren

Pas nadat alle vorige stappen zijn gezet, laten we toe dat de afvoer langzaam wordt afgevoerd

6. Bergen

We slaan water op in raingardens, wadi's, vijvers of waterrijke gebieden. De functie kan permanent water bevatten of alleen opvullen tijdens nat weer.

1. Vang het op

We vangen regenwater in de buurt van waar het valt, van nabijgelegen daken, wegen en parkeerplaatsen.

2. Vertraag het

We vertraag de afvoer van het regenwater zoveel mogelijk door stromen op het oppervlak te houden.

3. Zuiveren het

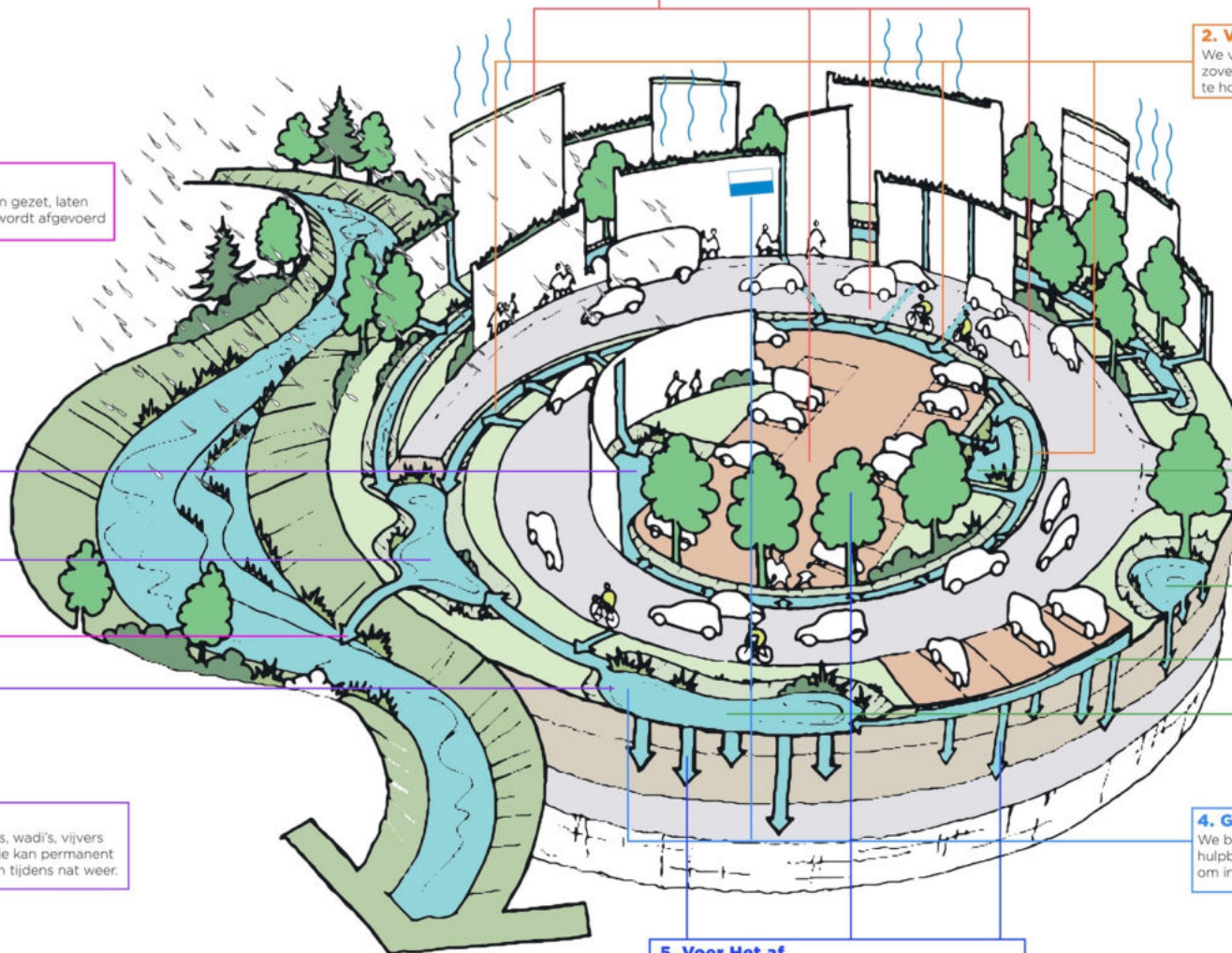
We zuiveren regenwater door het door een reeks voorzieningente laten gaan.

4. Gebruik het

We behandelen regen als een waardevolle hulpbron, door het regenwater her te gebruiken, om in te spelen en de natuur te helpen.

5. Voer Het af

We streven ernaar zoveel mogelijk hemelwater vastte houden door de opname door planten, terugkeer van waterdamp naar de atmosfeer en inzijing in de grond.



Wat vind je nu van De Overloper en zijn groene ruimtes?

How do you feel about De Overloper and its green spaces?

Plak een sticker met een persoonlijk antwoord op hoe jij je voelt over divers plaats in De Overloper

Place a sticker giving your personal response to how you feel about the various spaces throughout De Overloper





Beplooiing Verbalen:
Buitenhovelaan
onthult Boomen weg.

Meanderlaan

Driewegenhof

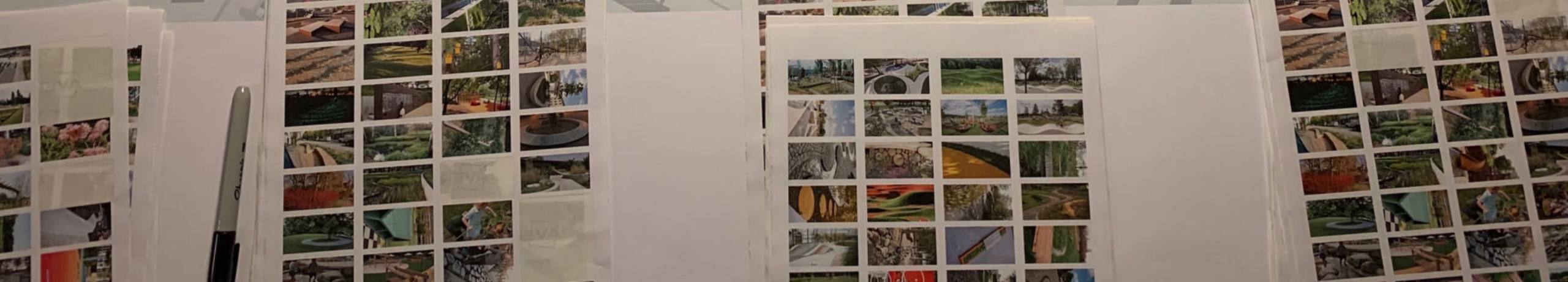
De Overloper

Dauwenda

Papistand

acacia's wegl ->
esthetische inrichting
-> gevaarlijke & acacia's
40jro

randstraat

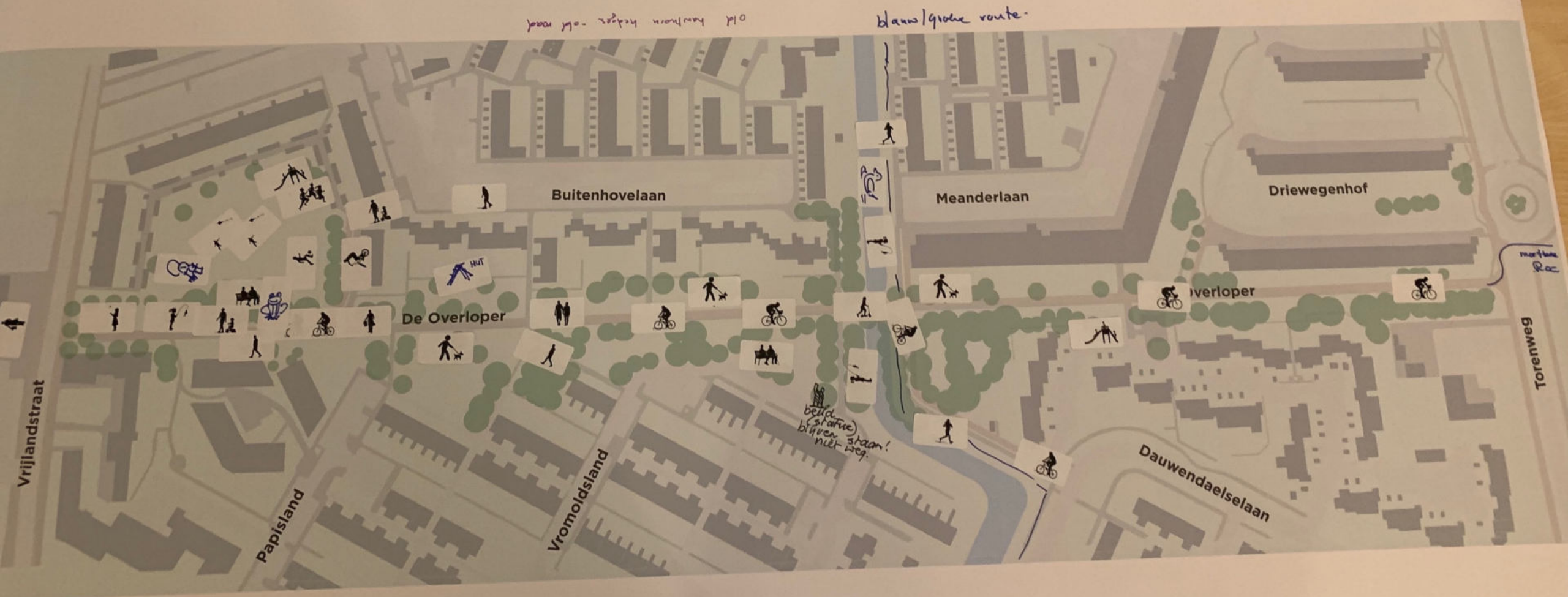


Hoe gebruik je De Overloper nu?

How do you use De Overloper now?

plak de stickers om aan te geven wat je voor activiteiten doet in het gebied en
wanneer dat is. Je mag ook blanco stickers gebruiken als jouw activiteit er niet bij
staat.

Use the stickers provided and show us what activities you currently engage in within De Overloper and where, and stick them on the plan. Use a blank sticker
and create your own if there is an activity we have missed.



Welke routes neem je door De Overloper en zijn groene ruimte?

What routes do you take through De Overloper and it's green spaces?

Kruis aan hoe je De Overloper gebruikt. Gebruikt gekleurde stiften omi jouw belangrijkste route aan te geven

Use the colour coded pens provided and the mark on the plan below what type of routes you take through De Overloper.

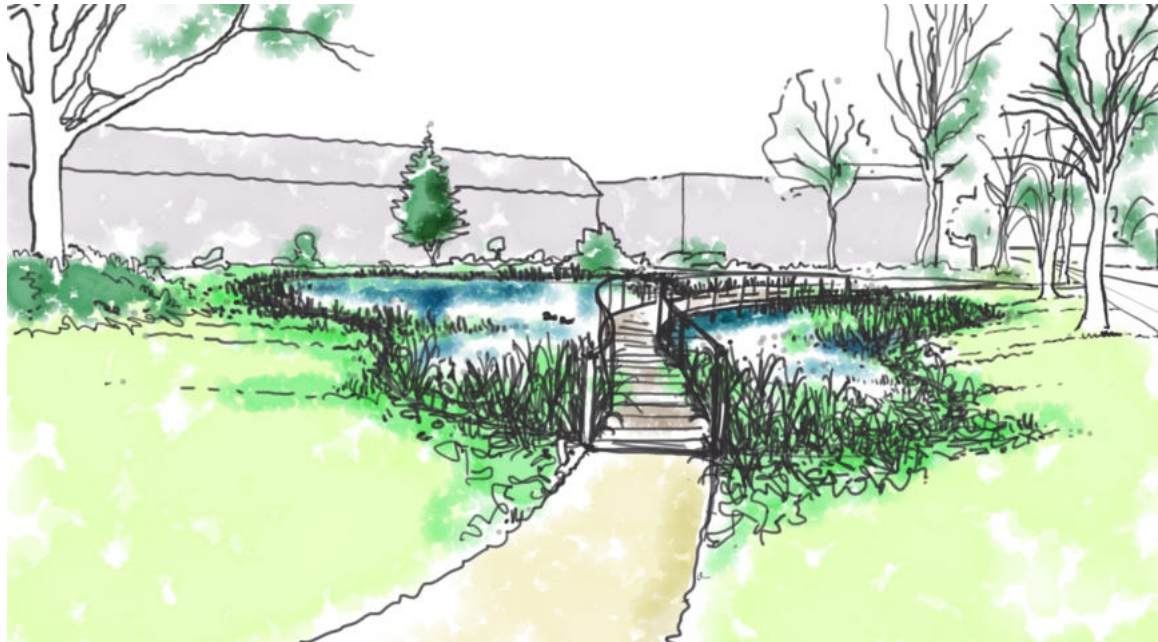
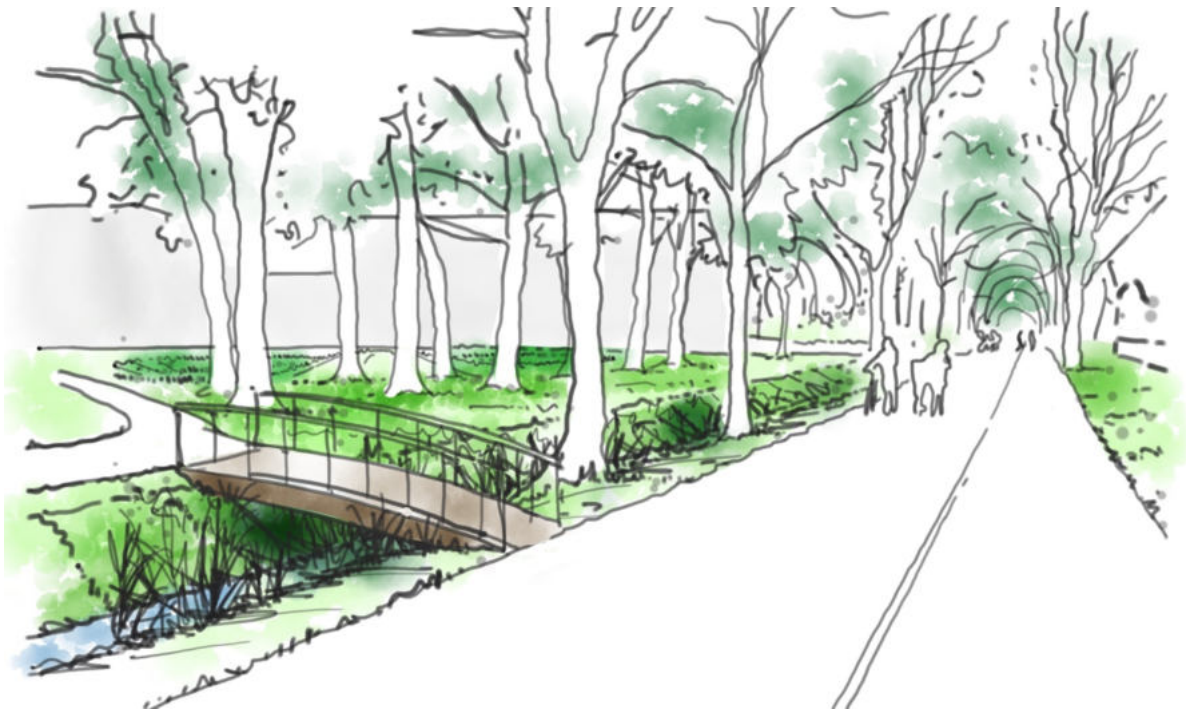




Key

- Basins/swales
- Earth mounding
- Areas with permanent water
- Timber deck/bridge elements
- Formal play space
- Informal play features/ fitness equipment
- Areas of enhanced planting
- Raingardens





attitudes to water











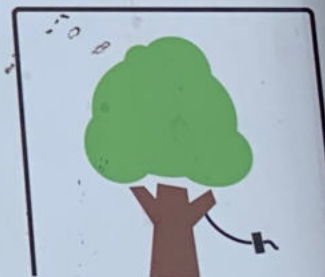




WELKOM OP SPEELHOF HOOGERZAEEL

HUISREGELS OP HET SPEELHOF

- Op ons terrein is GEEN TOEZICHT! Ouders en begeleiders houden zelf toezicht op hun kinderen.
- Diepte van de sloten is circa 120 cm.
- Diepte speelwater (links naast de balk over het water) is tot 40 tot 50 cm. Laat kleine kinderen niet zonder begeleiding op de steiger, balk of vlotjes spelen.
- Het water is NIET goedgekeurd als zwembadwater.
- Draag laarzen of waterschoenen; er kunnen scherpe voorwerpen in het water liggen.
- Honden zijn in verband met de veiligheid en hygiëne niet toegestaan.
- Fietzers mogen STAPVOETS fietsen op het asfaltpad en geven voorrang aan wandelaars en spelende kinderen.
- Het is verboden tussen zonsondergang en zonsopgang op het terrein te verblijven.



SPEELHOF HOOGERZAEEL



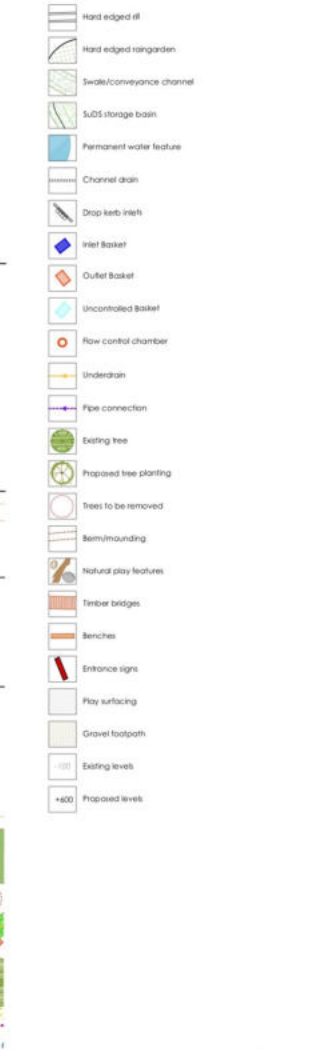
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TV









Revision	Date	Initial	Comments
A	30.05.2019	LCH/JP	Refinement of layout, adjustments to levels

Robert Bray Associates
Sustainable Drainage Consultants + Landscape Architects

Project name: **DeOverloper**

Drawing title: **Landscape Proposals (full scheme)**

Scale: **Preliminary** Date: **10.05.19**

Drawing no: **RBA-DEO-001** Sheet: **1 of 4** Rev: **A**

Scale: **1:200 @A0** Drawn by: **LCH/JP** Approved by: **KJB**

A cross-sectional diagram of a water pump system. On the left, a 'Play bank' is shown with a 'Main Water level' indicated by a dashed blue line. A 'Water pump' is situated on the ground surface, with a blue arrow pointing from the water level into it. The pump is connected to a large 'Underground storage tank' below the ground. A blue arrow points from the pump into the tank. The tank is labeled 'Underground storage tank'. Above the tank, a 'Play surfacing' layer is shown. To the right of the tank, a 'Channel flow into tank' is indicated by a blue arrow. A 'Slot weir' is located at the end of the channel, with a blue arrow pointing from the channel into the tank. A person is standing on the ground surface next to the pump.

A detailed cross-section diagram of a play water feature. The diagram shows a concrete structure with a water level indicated by a blue line. A metal grating covers the top of the structure. A letterbox opening is shown on the side, leading into the structure. A swale is shown on the right, leading into the structure. A concrete rill is shown on the left, with an opportunity for colored pigment. An underdrain with a stainless steel spout is shown at the bottom, leading into the structure. A play surfacing area is shown on the left, with a blue arrow indicating water flow. A concrete rill is shown on the left, with an opportunity for colored pigment. An underdrain with a stainless steel spout is shown at the bottom, leading into the structure.

- Movable weirs to allow children to playfully release water into basin
- Play surfacing
- Concrete rill with opportunity for coloured pigment
- Underdrain with stainless steel spout into rill
- Metal grating to top of rill
- Letterbox opening into rill
- Swale into rill

Project name:	DeOverloper		
Drawing title:	Water Play Space		
Status:	Preliminary	Date:	14.06.19
Drawing no:	RBA-DEO-DET15	Sheet:	- Rev: -
Scale:	1:1	Drawn:	Approved:

This diagram illustrates the cross-section of a rain garden designed for stormwater management. The garden is situated between two existing roads. Key components and labels include:

- Existing road**: The road surface on both sides of the garden.
- Root protection barrier**: A barrier installed at the base of the existing road to prevent roots from penetrating the garden structure.
- Connection to sewer**: A pipe leading from the garden area to the sewer system.
- Stainless steel mesh outlet basket. Basket laid upright.**: A basket used for filtering debris from the runoff water.
- Existing kerb dropped as required to create opening**: The lowered curb on the right side of the road to allow water to enter the garden.
- Sett detail erosion protection cascade into raingarden**: A structure designed to dissipate the energy of incoming water and prevent erosion.
- Ornamental planting within raingarden**: Plants selected for their ability to absorb water and provide aesthetic value.
- Max Water level**: The highest level to which water can rise in the garden during a storm event.
- Reprofiled tarmac apron with 1 in 20 fall onto kerb in all directions**: A prepared surface on the right side of the road that directs water into the garden.
- Triple stakes to outside of rootball**: A method for securing plants in the garden bed.
- Free draining sandy loam topsoil**: The soil layer designed to facilitate rapid water infiltration.
- Drainage layer**: A layer of material (likely gravel or coarse sand) that allows water to pass through and infiltrate the ground.

Project name:	DeOverloper		
Drawing title:	Roundabout Raingarden		
Status:	Preliminary	Date:	14.06.19
Drawing no:	RBA-DEO-DET02	Sheet:	1
Scale:	1:20 @A3	Drawn by:	LCH
		Appr. by:	

[illegible]

Project name:	DeOverloper		
Drawing title:	Raingarden and basin		
Sheet:	Preliminary	Date:	14.06.19
Drawing no:	RBA-DEO-DET10	Sheet:	-
Scale:	1:20 @ A3	Drawn:	AG

The left drawing is a cross-section of a rainwater garden. It shows a concrete wall on the left, with a slope of 1:3 leading down to a gravel area. A blue dashed line indicates the 'Max Water level'. A label points to the wall: 'Raingarden wall - materials to be confirmed'. Another label points to the slope: 'Varies'. A label points to the existing ground level: 'Existing footpath/cycleway'. The right drawing is a cross-section of a splash pad. It shows a concrete wall with a 'Stainless steel spout overflow to swale'. A label points to the overflow weir: 'Overflow weir'. A label points to the splash pad area: 'Splash pad'.

This diagram illustrates the cross-section of a swale system. On the left, a road surface is shown with a dashed blue line indicating the 'Max Water level'. A 'Flow control' structure, consisting of a grid of stones, is embedded in the road. Water flows from the road through this control into a 'Flow control' chamber. An 'Overflow weir' is located at the top of this chamber. Water then flows through a 'Stainless steel plate with rounded overhang' and a 'Stainless steel spout overflow to swale' into the 'Top of swale'. The swale is filled with grass and has a 'Splash pad' at its base. The entire system is supported by a concrete base.

Project name:	DeOverloper		
Growing site:	Entrance Raingardens		
Species:	Preliminary	Date:	14.06.19
Growing no.:	RBA-DEO-DET01	Sheet:	-
Scale:	As shown@A3	Grown by:	LCH

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Thank you

Ask me a question!

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