

BG-Filcoten® dreneringsrenner

INSTALLASJONSVEILEDNING
BG-Filcoten® PRO





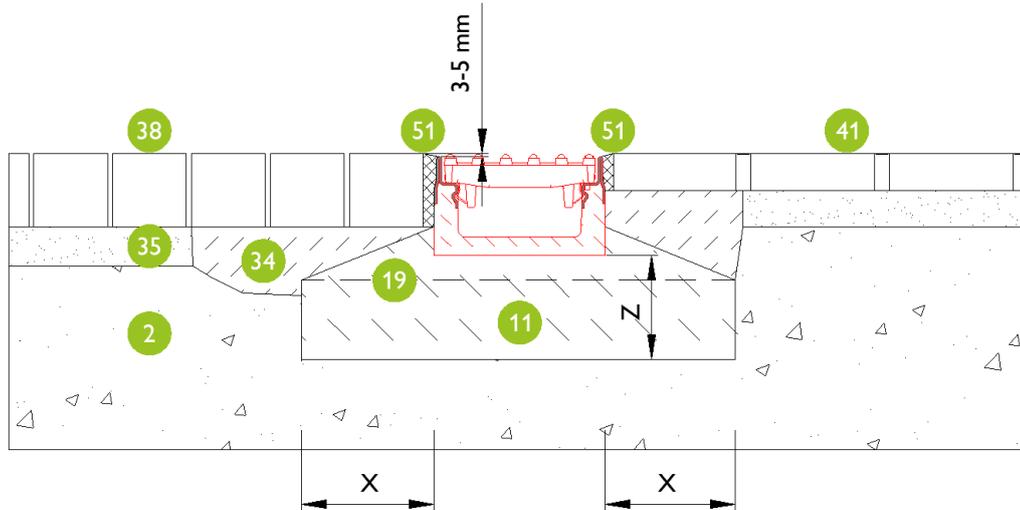
general note

The following installation guidelines and examples are designed to use for an accepted standard. The load class and the installation location according to EN 1433 have to be adapted to the location conditions from the planner. Consider the common known technical rules and guidelines which are accepted among experts. In special cases contact the BG - application engineers.

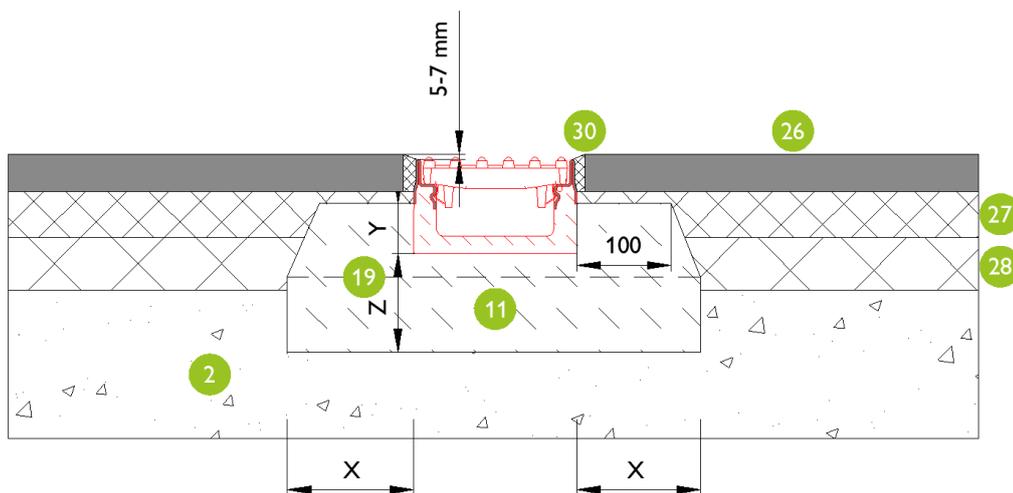
installation instruction FILCOTEN® pro

1. FILCOTEN® channels are set up in a concrete-bedding according to Ö-Norm B4710-1 or in drainage-concrete according to RVS 08.18.01. Mind the slope of the channel while excavating. Depending on the static demand you will need a supporting wedge or a concrete casing even with steel reinforcement – see the table below for details and measurements. BG channels should generally be set up with proper tools (e.g. BG lifting grab).
2. Take note of the different heights of channels with gradient and start setting at the outlet of the channel line. Each channel is marked with an arrow showing the direction of flow.
3. The rebated joint between the channels can be sealed and cemented with appropriate sealing compounds – for description of material and quantity calculation see - BG sealing system.
4. Before assembling the adjacent cover layer make sure that the covers are inserted and if necessary fixed or the channels are braced adequate against compression. Pay attention not to damage the channels while compacting the superstructure and the pavement (asphalt, pavement, concrete).
5. If there are occurring horizontally forces (e.g. due to concrete areas, gradients,...) you have to build out an adequate running joint at an interval of 30 – 200 cm from the channel. In a concrete area where there are running joints crossing the channel line they have to be arranged to go through a rebated joint of the line.
6. Occurring shear forces from the pavement must be positively connected to the back support. This can be done by offsetting the first three pavement rows (at the channel line) in a mortar bed. The joints have to be mineral backfilled. Shear forces from the pavement must not act directly on the channel walls (eg thermal expansion, braking forces, ...)
7. We advise by use in highly frequented areas according to the area of application, frequency and driving speed to fix the grates with the anti-vandalism locking device or to screw the gratings in channels with cast iron edge (tighten the screw connection with max. 20Nm torque (NW100-200); max. 40Nm - NW300).
8. All adjacent surfaces should be permanently 3-5mm higher than the surface of the channel/grate to avoid mechanical damage (e.g. snow clearing) and to guarantee the water drainage.
9. In areas that were enhanced chemical attacks (e.g., de-icing salts, acids, bases, etc.) can be expected, we recommend to install drainage channels with stainless steel edge and to use stainless steel covers.
10. The installation instructions also apply to sump units.

Pflaster / pavement - Plattenbelag / flag pavement: Kl. / cl. A - C



Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. A - C

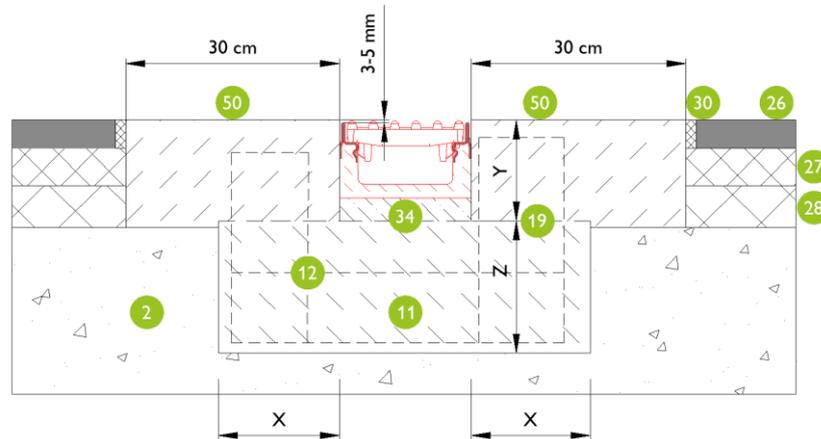


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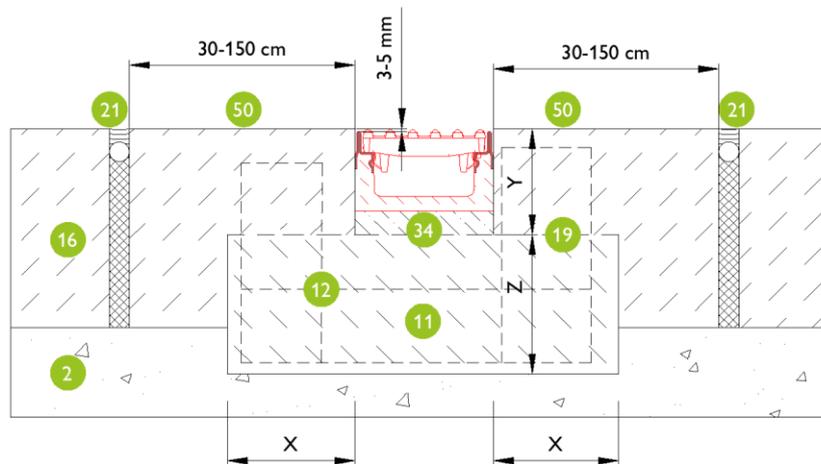
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| 2. | tragfähige Schotterschicht /
load-bearing gravel layer | 28. | tragfähige Bitumenschicht /
bitumen layer |
| 11. | Betonfundament lt. statischer Bemessung /
concrete foundation acc. to static calculations | 30. | bituminöses Fugenband /
bituminous sealing tape |
| 19. | Arbeitsfuge / expansion joint | 34. | Mörtelbett / mortar bed |
| 26. | Feinbelag / surface course | 35. | Splittbett / grit bed |
| 27. | Bitukies / bitumen gravel | 38. | Pflastersteine / paving stones |
| | | 41. | Steinzeug-Belag / tile covering |
| | | 51. | Lunker-freier Fugen-Verguss /
cavity free sealing |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
* Betongüte ist eine Mindestanforderung und den örtlichen Anforderungen anzupassen. * Concrete quality is a minimum requirement and has to be adapted to the local conditions.					

Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. D - E



Beton / concrete - Beton / concrete: Kl. / cl. D - E

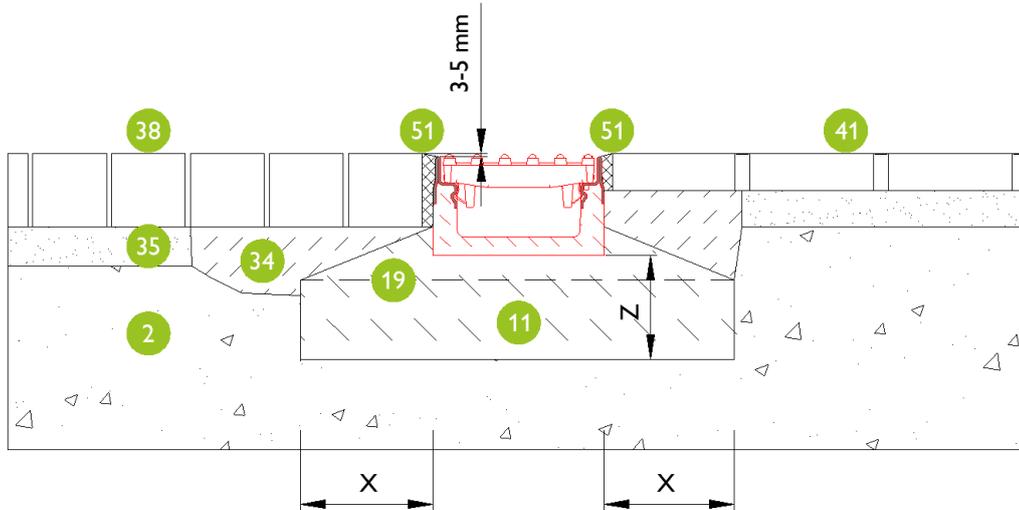


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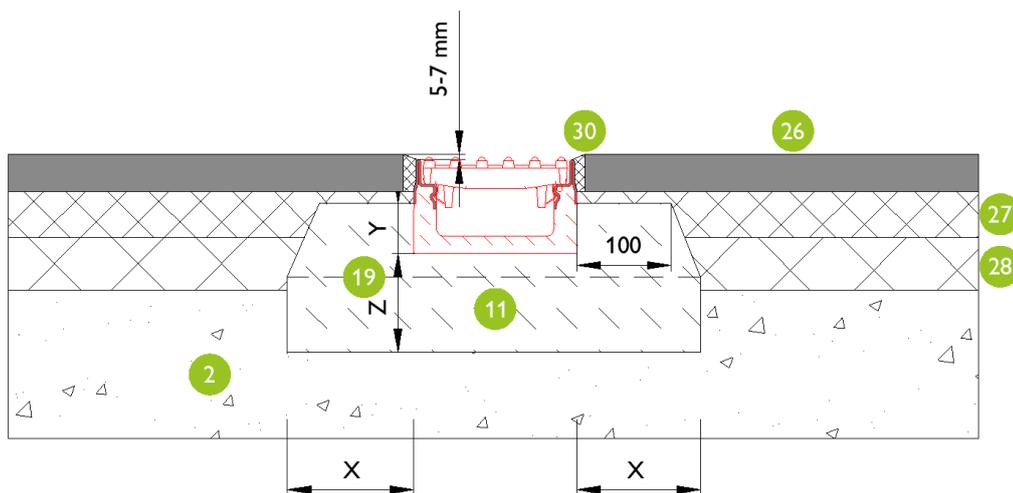
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| 12. | Klasse E: Konstruktive Bewehrung / class E:
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| 16. | Fahrbahnbeton / concrete pavement | 34. | Mörtelbett / mortar bed |
| 19. | Arbeitsfuge / working joint | 46. | Läuferstein oder Betonläufer / stretcher paving or
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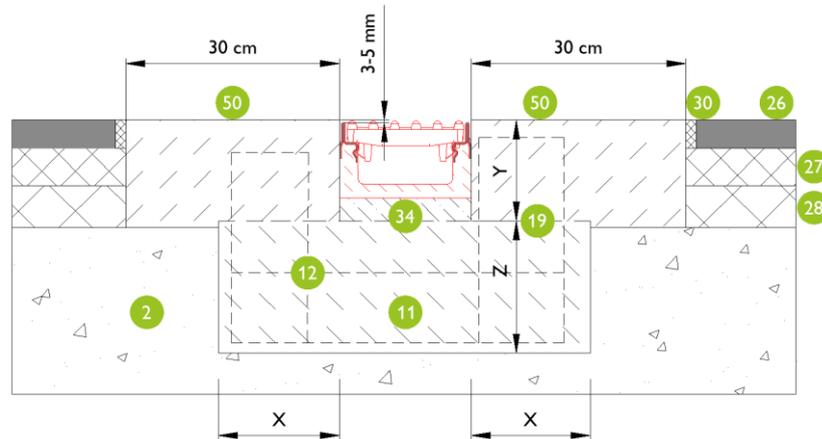


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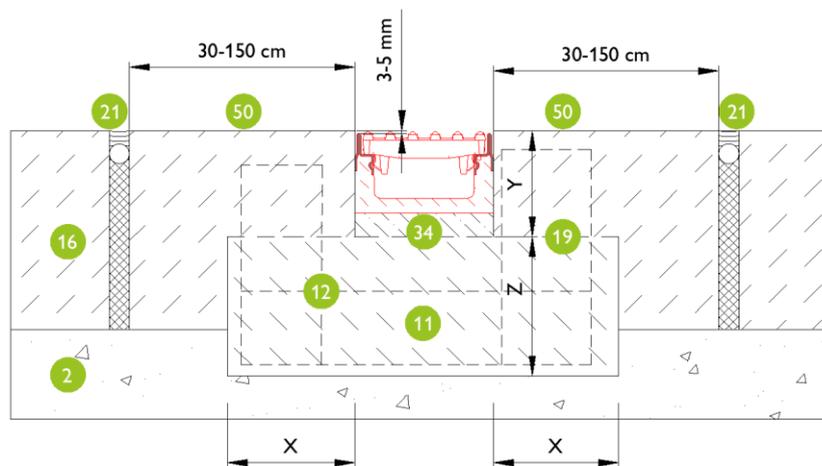
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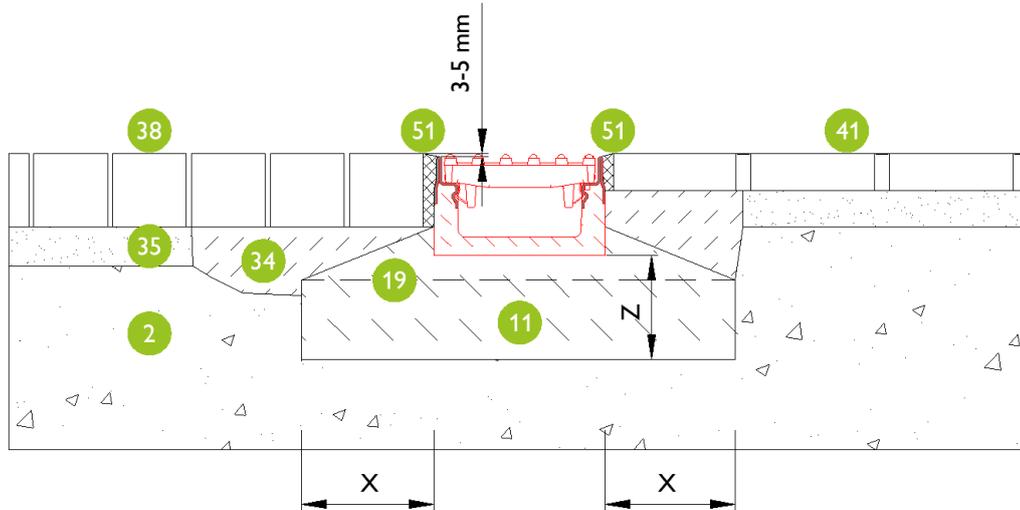


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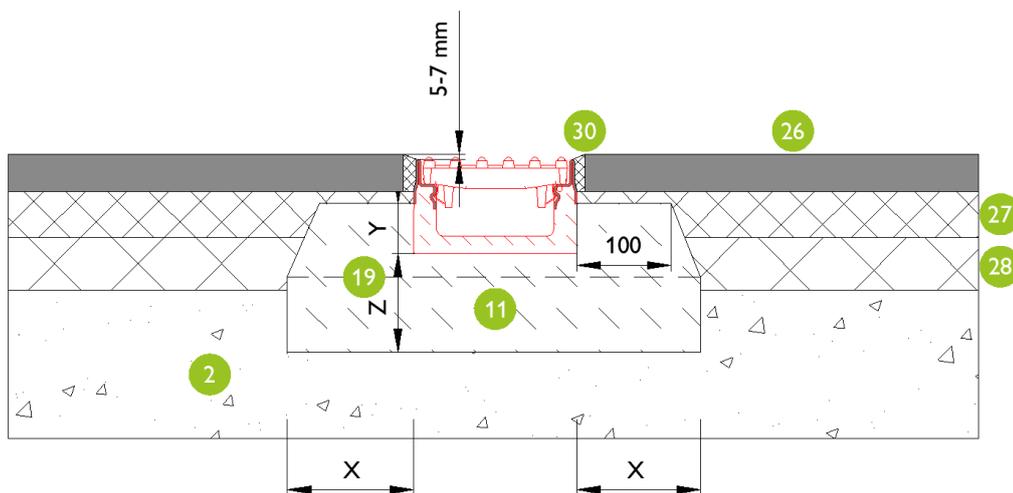
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| 21. | Dehnfuge / expansion joint | 50. | Quer-Scheinfuge alle 6m am Rinnenstoß, altern. Bewehrung konstruktiv bzw. lt. Statik / transversal-concealed joint each 6m at channel joints, alternatively structural reinforcement |
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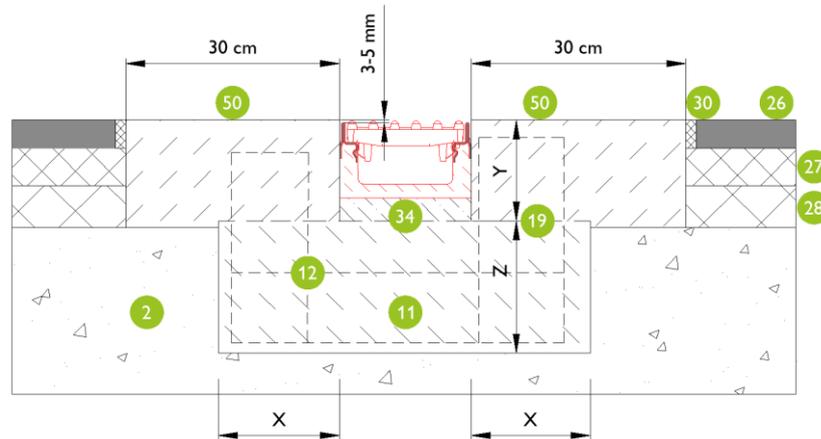


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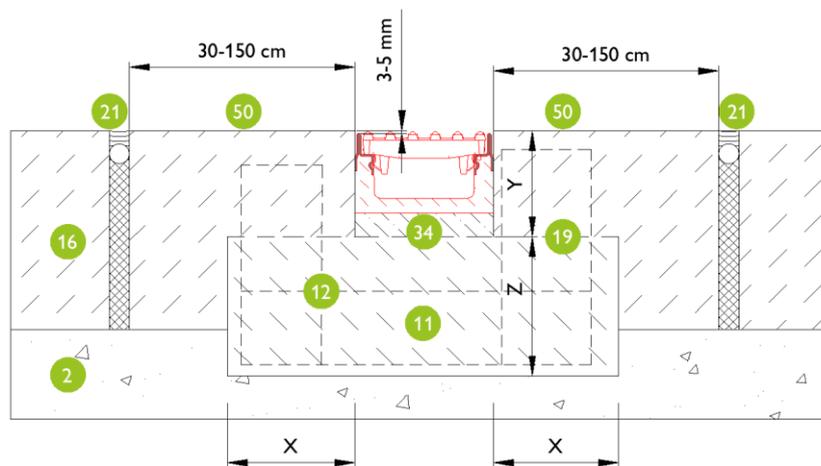
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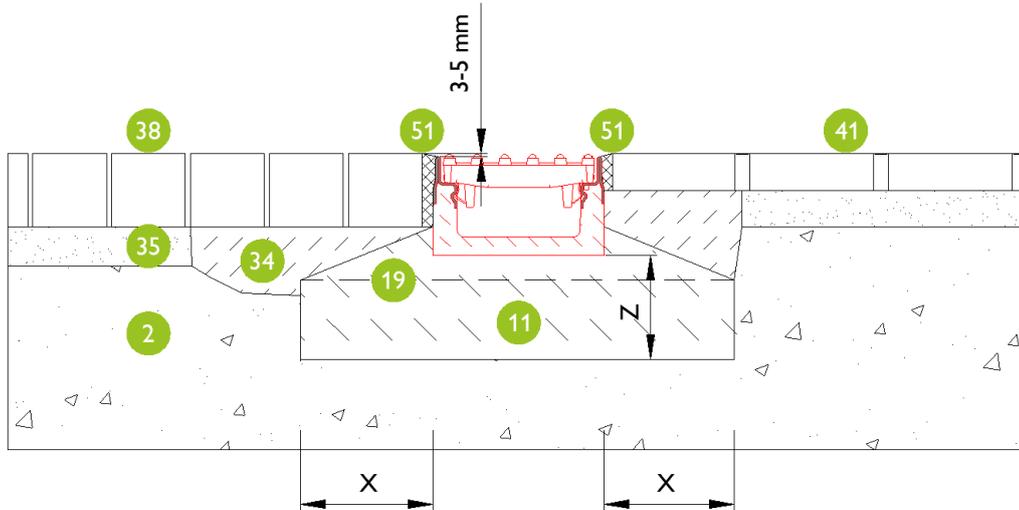


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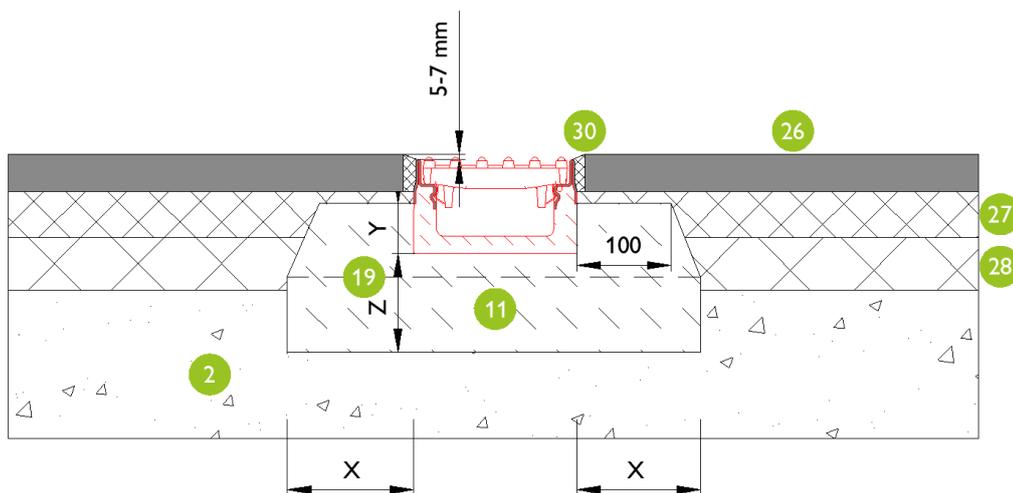
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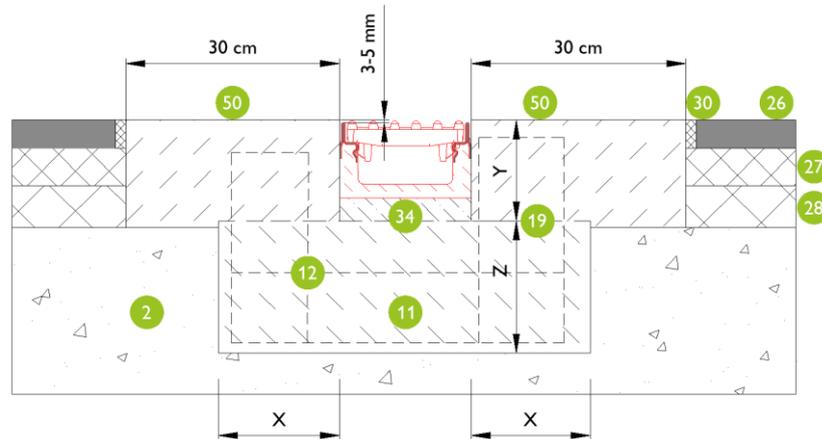


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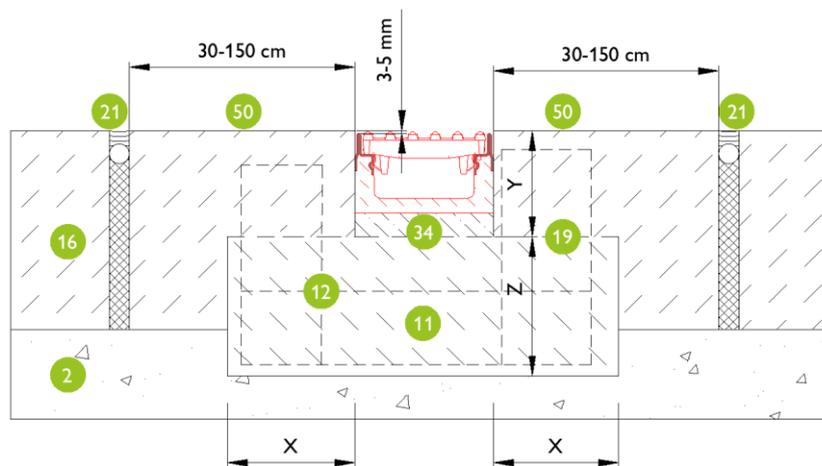
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Legende / key:

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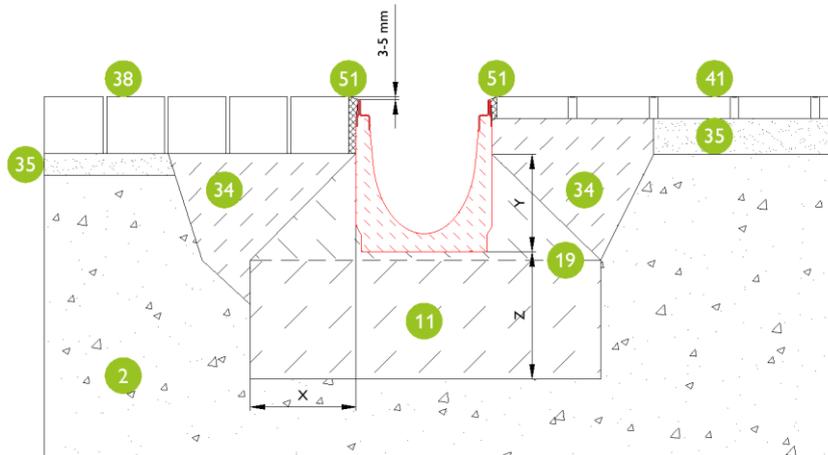
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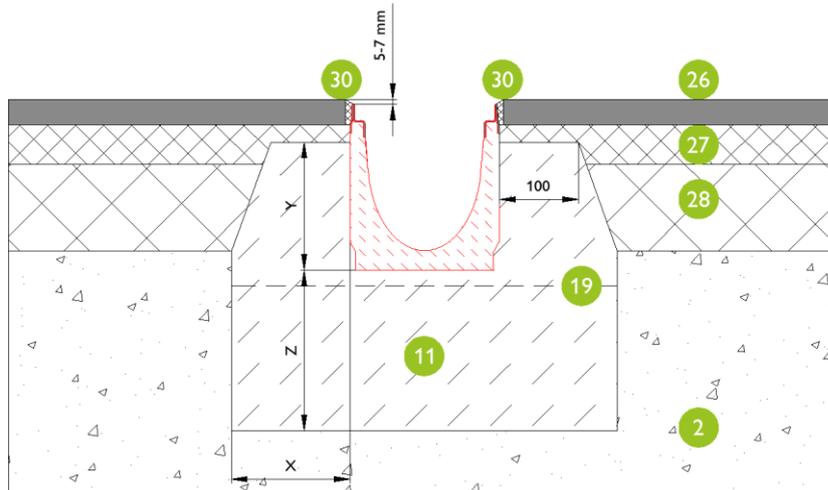
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Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. A - C



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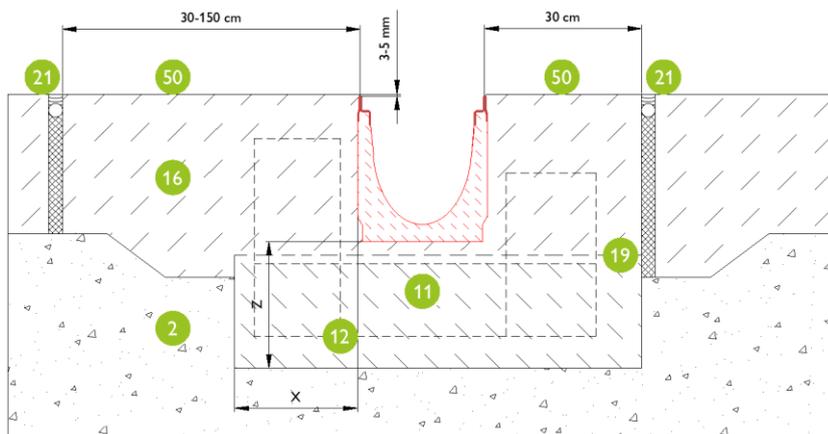
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Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
* Betongüte ist eine Mindestanforderung und den örtlichen Anforderungen anzupassen. * Concrete quality is a minimum requirement and has to be adapted to the local conditions.					

Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. D - E



Beton / concrete - Beton / concrete: Kl. / cl. D - E

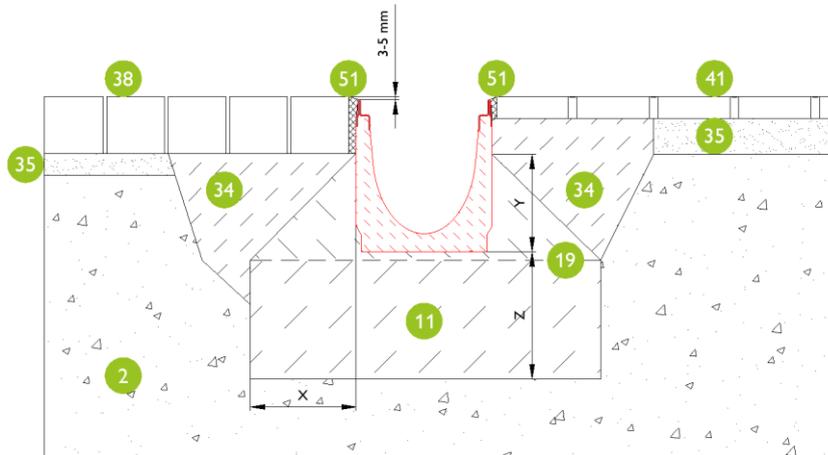


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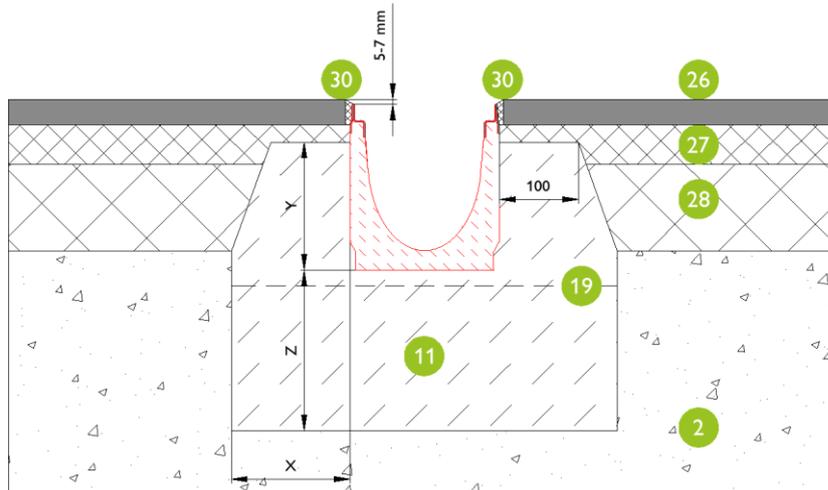
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|-----|--|-----|---|
| 2. | tragfähige Schotterschicht /
load-bearing gravel layer | 27. | Bitukies / bitumen gravel |
| 11. | Betonfundament lt. statischer Bemessung /
concrete foundation acc. to static calculations | 28. | tragfähige Bitumenschicht / bitumen layer |
| 12. | Klasse E: Konstruktive Bewehrung / class E:
structural reinforcement | 30. | bituminöses Fugenband / bituminous sealing tape |
| 16. | Fahrbahnbeton / concrete pavement | 46. | Läuferstein oder Betonläufer / trecther paving or
concrete stretcher |
| 19. | Arbeitsfuge / working joint | 50. | Quer-Scheinfuge alle 6m am Rinnenstoß,
altern. Bewehrung konstruktiv bzw. lt. Statik /
transversal-concealed joint each 6m at channel
joints, alternatively structural reinforcement |
| 21. | Dehnfuge / expansion joint | 51. | Lunker-freier Fugen-Verguss / cavity free sealing |
| 26. | Feinbelag / surface course | | |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
* Betongüte ist eine Mindestanforderung und den örtlichen Anforderungen anzupassen. * Concrete quality is a minimum requirement and has to be adapted to the local conditions.					

Pflaster / pavement - Plattenbelag / flag pavement: Kl. / cl. A - C



Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. A - C



Legende / key:

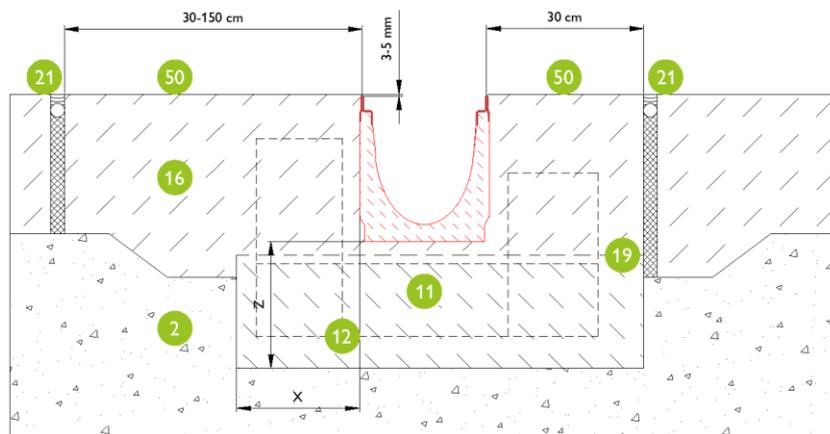
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|-----|--|-----|--|
| 2. | tragfähige Schottererschicht /
load-bearing gravel layer | 28. | tragfähige Bitumenschicht / bitumen layer |
| 11. | Betonfundament lt. statischer Bemessung /
concrete foundation acc. to static calculations | 30. | bituminöses Fugenband / bituminous sealing tape |
| 19. | Arbeitsfuge / working joint | 34. | Mörtelbett / mortar bed |
| 26. | Feinbelag / surface course | 35. | Splittbett / grit bed |
| 27. | Bitukies / bitumen gravel | 38. | Pflastersteine / paving stones |
| | | 41. | Steinzeug-Belag / tile covering |
| | | 51. | Lunker-freier Fugen-Verguss / avity free sealing |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
* Betongüte ist eine Mindestanforderung und den örtlichen Anforderungen anzupassen. * Concrete quality is a minimum requirement and has to be adapted to the local conditions.					

Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. D - E



Beton / concrete - Beton / concrete: Kl. / cl. D - E

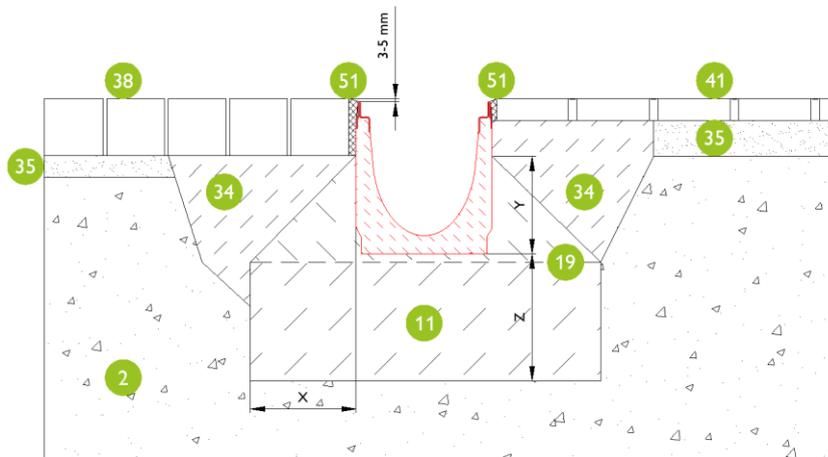


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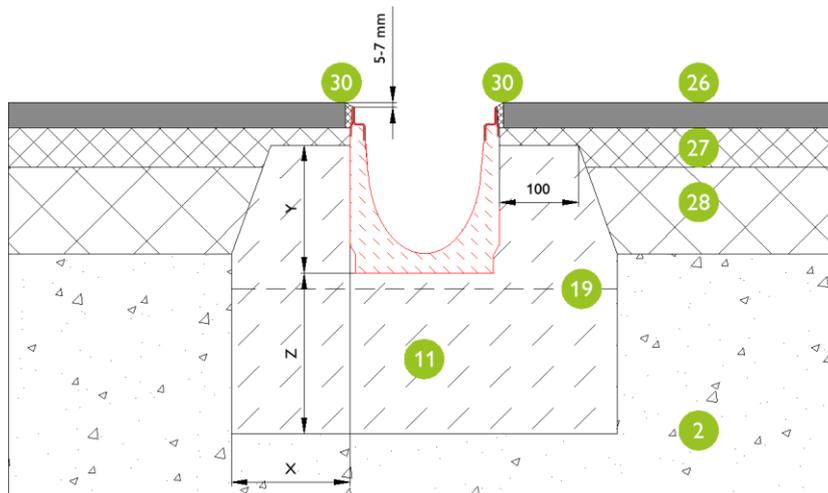
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|-----|--|-----|---|
| 2. | tragfähige Schotterschicht /
load-bearing gravel layer | 27. | Bitukies / bitumen gravel |
| 11. | Betonfundament lt. statischer Bemessung /
concrete foundation acc. to static calculations | 28. | tragfähige Bitumenschicht / bitumen layer |
| 12. | Klasse E: Konstruktive Bewehrung / class E:
structural reinforcement | 30. | bituminöses Fugenband / bituminous sealing tape |
| 16. | Fahrbahnbeton / concrete pavement | 46. | Läuferstein oder Betonläufer / trecther paving or
concrete stretcher |
| 19. | Arbeitsfuge / working joint | 50. | Quer-Scheinfuge alle 6m am Rinnenstoß,
altern. Bewehrung konstruktiv bzw. lt. Statik /
transversal-concealed joint each 6m at channel
joints, alternatively structural reinforcement |
| 21. | Dehnfuge / expansion joint | 51. | Lunker-freier Fugen-Verguss / cavity free sealing |
| 26. | Feinbelag / surface course | | |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
* Betongüte ist eine Mindestanforderung und den örtlichen Anforderungen anzupassen. * Concrete quality is a minimum requirement and has to be adapted to the local conditions.					

Pflaster / pavement - Plattenbelag / flag pavement: Kl. / cl. A - C



Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. A - C



Legende / key:

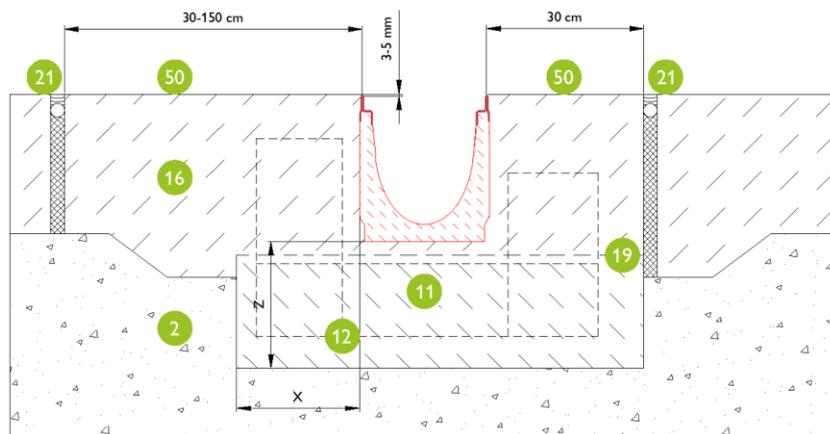
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|-----|--|-----|--|
| 2. | tragfähige Schottererschicht /
load-bearing gravel layer | 28. | tragfähige Bitumenschicht / bitumen layer |
| 11. | Betonfundament lt. statischer Bemessung /
concrete foundation acc. to static calculations | 30. | bituminöses Fugenband / bituminous sealing tape |
| 19. | Arbeitsfuge / working joint | 34. | Mörtelbett / mortar bed |
| 26. | Feinbelag / surface course | 35. | Splittbett / grit bed |
| 27. | Bitukies / bitumen gravel | 38. | Pflastersteine / paving stones |
| | | 41. | Steinzeug-Belag / tile covering |
| | | 51. | Lunker-freier Fugen-Verguss / avity free sealing |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
* Betongüte ist eine Mindestanforderung und den örtlichen Anforderungen anzupassen. * Concrete quality is a minimum requirement and has to be adapted to the local conditions.					

Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. D - E



Beton / concrete - Beton / concrete: Kl. / cl. D - E

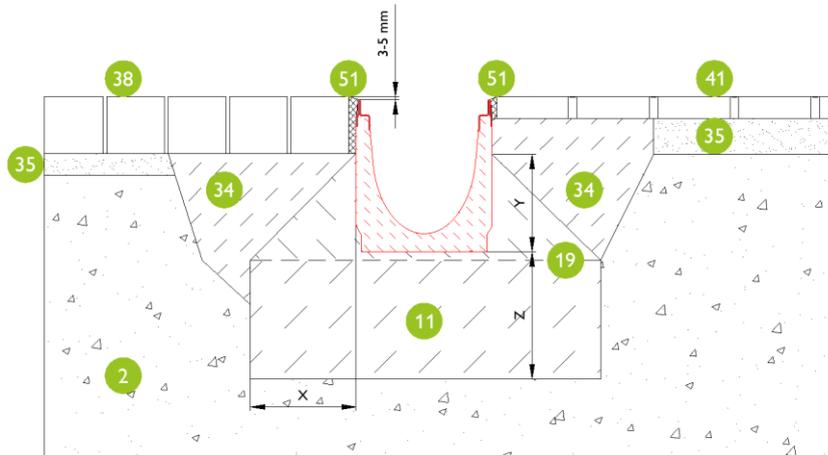


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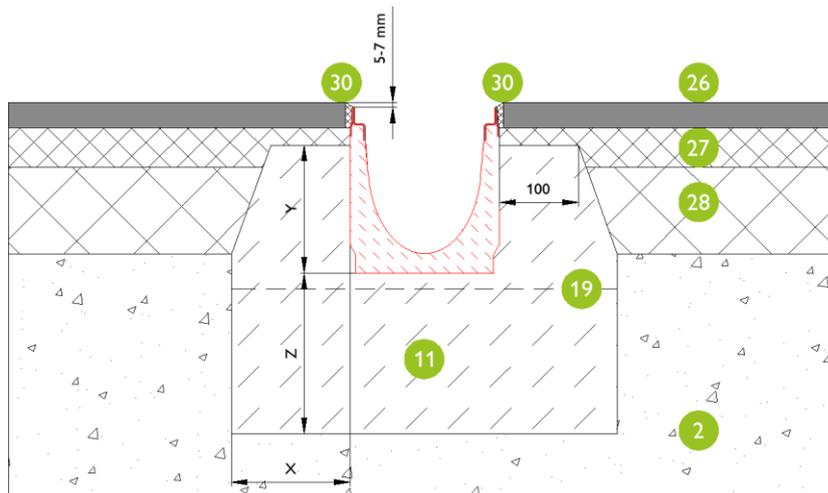
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| 26. | Feinbelag / surface course | | |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
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Pflaster / pavement - Plattenbelag / flag pavement: Kl. / cl. A - C



Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. A - C



Legende / key:

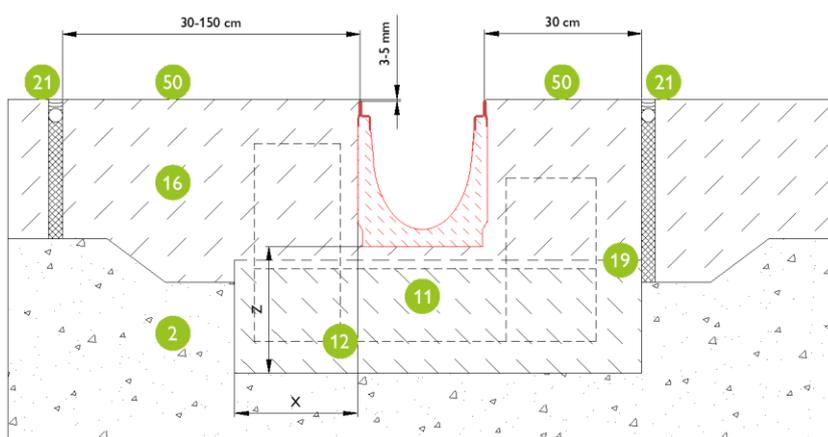
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| 2. | tragfähige Schottererschicht /
load-bearing gravel layer | 28. | tragfähige Bitumenschicht / bitumen layer |
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| 27. | Bitukies / bitumen gravel | 38. | Pflastersteine / paving stones |
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| | | 51. | Lunker-freier Fugen-Verguss / avity free sealing |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
Stärke / thickness: Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm
Konstruktive Bewehrung / structural reinforcement	nicht erforderlich / not necessary				erforderlich / necessary
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Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. D - E



Beton / concrete - Beton / concrete: Kl. / cl. D - E

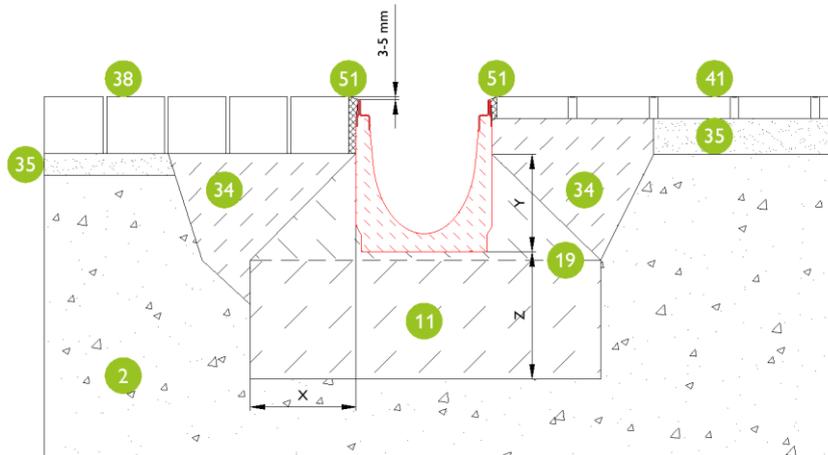


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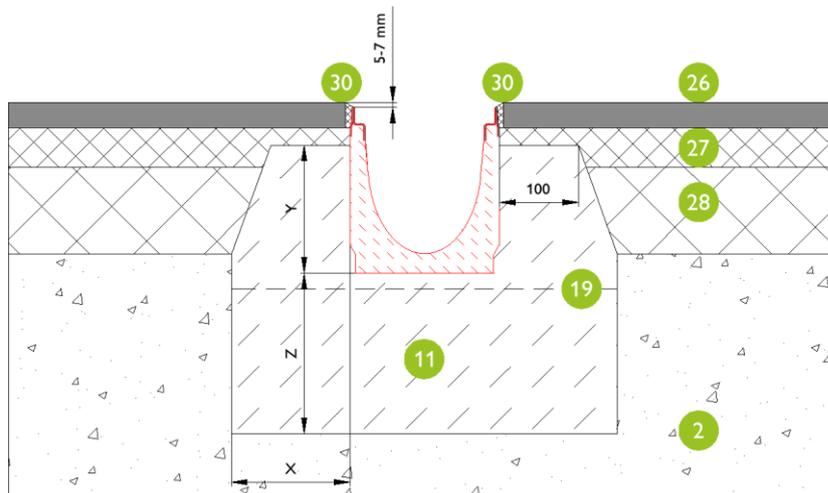
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| 26. | Feinbelag / surface course | | |

Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
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Pflaster / pavement - Plattenbelag / flag pavement: Kl. / cl. A - C



Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. A - C



Legende / key:

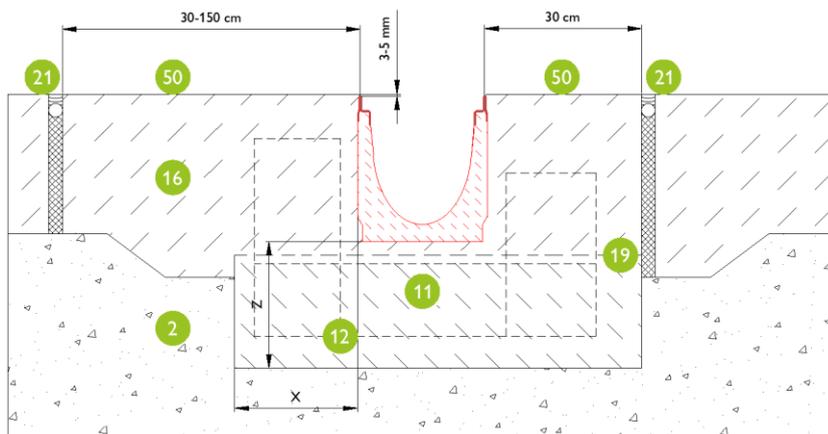
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Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
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Asphalt / asphalt - Asphalt / asphalt: Kl. / cl. D - E



Beton / concrete - Beton / concrete: Kl. / cl. D - E



Legende / key:

- | | | | |
|-----|--|-----|---|
| 2. | tragfähige Schotterschicht /
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Belastungsklasse / load class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Betongüte - Fundament gem. / concrete quality - base acc. to Ö-Norm B4710-I*	C 16/20	C 20/25	C 20/25	C 25/30	C 25/30
Breite / width: X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm
Höhe / height: Y	Rinnenhöhe / channel height - 5 cm (mini - 3 cm)			Bauhöhe Rinne / channel height	
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Ulefos AS

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ulefos.com

VA-TEKNIKK | GATEGODS | BYGG, ANLEGG OG UTEMILJØ

