U-Min Foundation Systems

from

Scandinavian Foundations

Thank you for your interest in Scandinavian Foundations and our U-Min foundation. The U-Min foundation has the best U-value on the European market. Giving lower heating cost and a superior floor comfort.

- We build foundations as sub contractors
- We train and certify builders to use our system
- We provide the required design support
- We supply all EPS components and ancillary items

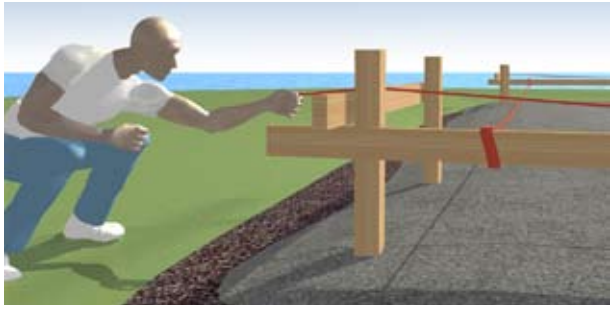
Compared to a standard high spec foundation you get:

- Lower Heating Cost
- Lower Building Cost
- Warmer floors-Better indoor climate
- A foundation that uses up to 40% less concrete and makes 33% better use of the insulation used.
- Added value to your property
- A foundation safe against rising damp
- A Radon safe foundation
- Typical U-Value 0.122-0.155 W/m2K

Illustration of how a standard U-Min foundation becomes reality

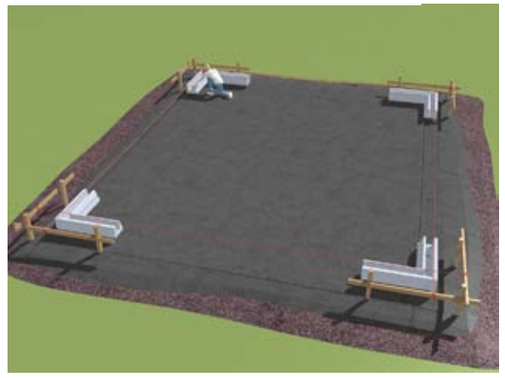
1. Strip the top soil and excavate to normally 600mm under FFL in accordance with work drawing.

2. Roll out the Geo Textile and the hard core. The hard core should be in layers of not more than ~125mm and compacted with vibrator or roller between layers. Levels to be monitored with a rotating laser.

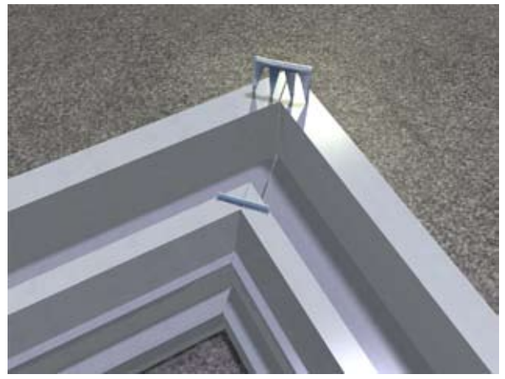


3. Mark out the corners with the help of wood profiles and strings. Remember to check the diagonals.

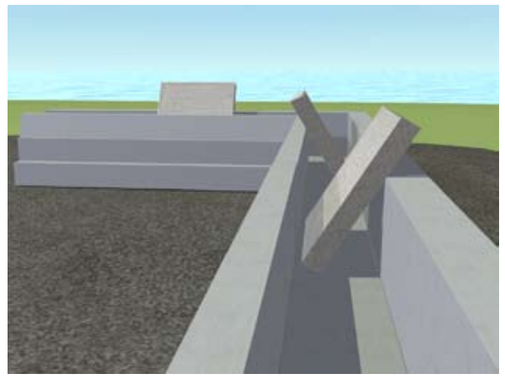
4. Use sand blinding for the final levelling. Start the assembling by placing the corner elements in position guided by the strings.



5. All corner elements are cut to the correct angle and fixed with Fixkil, a toothed metal plate as shown on the picture. Allways check the angle.

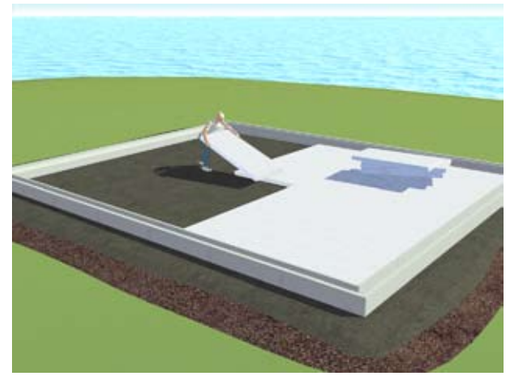


6. Place the remaining elements out until just one is left.

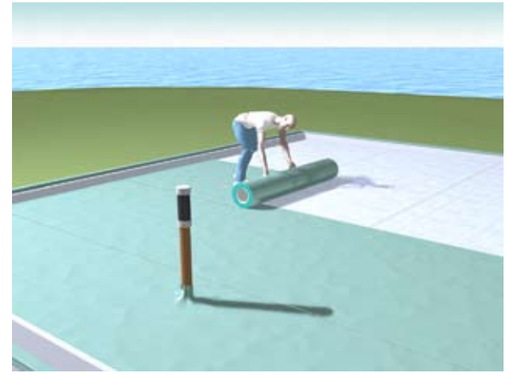


7. Cut the last element with a teflon coated handsaw.

8. Put the first layer of EPS in place.

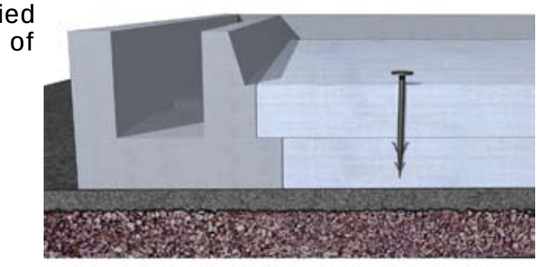


9. Roll out the radon barrier on tp of the first insulation layer. Over lap with minimum 300mm. Fit sleeves on services comming through the insulation.

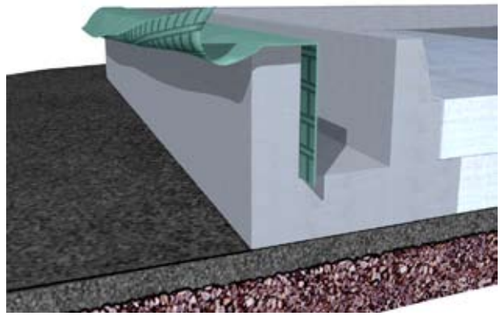


10. Fit the remaining 2nd and 3rd layer of insulation slabs.

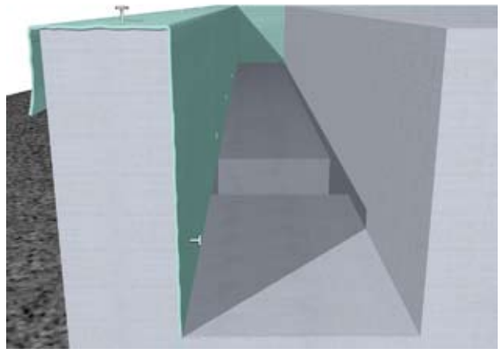
11. All slabs to be nailed with the supplied special insulation nails. One in each corner of the slabs.



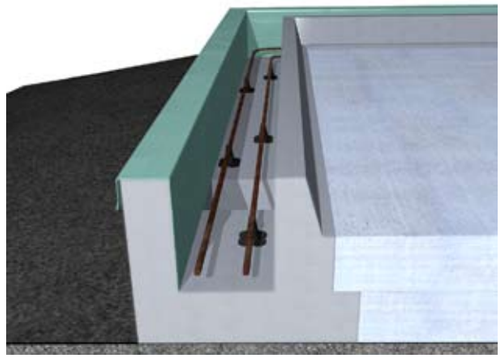
12. Fitting of the Form Foil.
The foil starts at the bottom of the outer flange and is folded over the top of the flange as shown on the picture. Important is to fit the checkered side of the foil against the element. No part of the foil under the beam.
Form oil must under no circumstances be uesd as it melts the polystyrene.



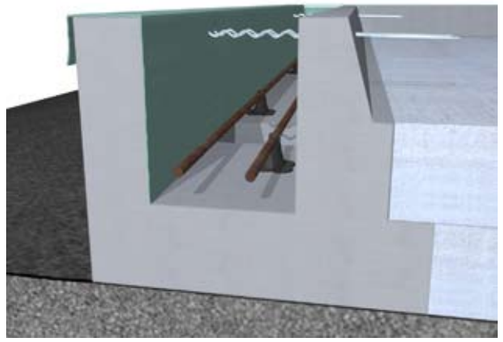
13. Use wide headed Felting Nails to keep the foil in place.
Length ~25mm.
Do not let any part of the foil to be at the bottom of the element.



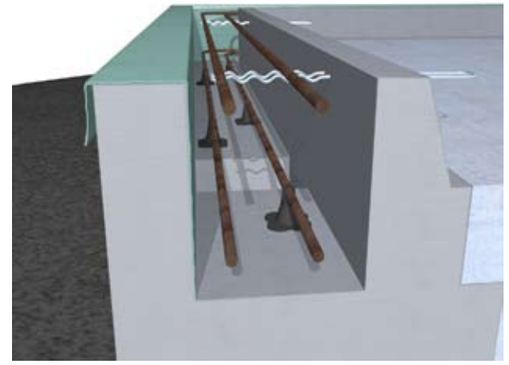
14. Reinforcement of Ringbeam in accordance with specification on work drawing. Start by placing 50mm plastic spacers at bottom c/c 2meter. Overlap of bars should be minimum 600mm, concrete coverage minimum 40mm.



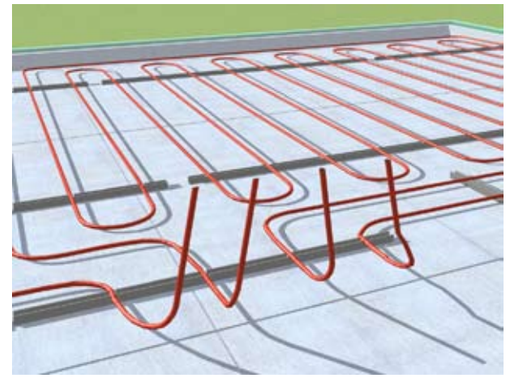
15. The U-Sinus Ties should be placed at the same level as the reinforcement mesh, 50mm from top of RC Slab. Pre-drill holes in inner flange of the element c/c 900mm unless otherwise is specified on your work drawing. Position the ties as shown on the picture.



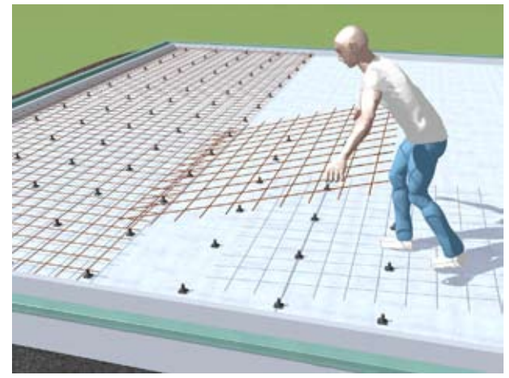
16. For top reinforcement of ring beam place and tie steel rods to U-Sinus Ties. Overlap of rods min 600mm.



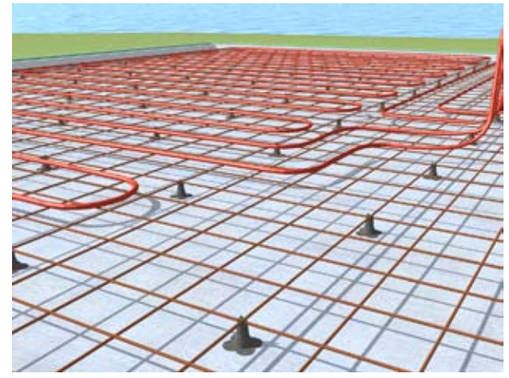
17. For UFH on top of EPS slabs follow work drawing specification.

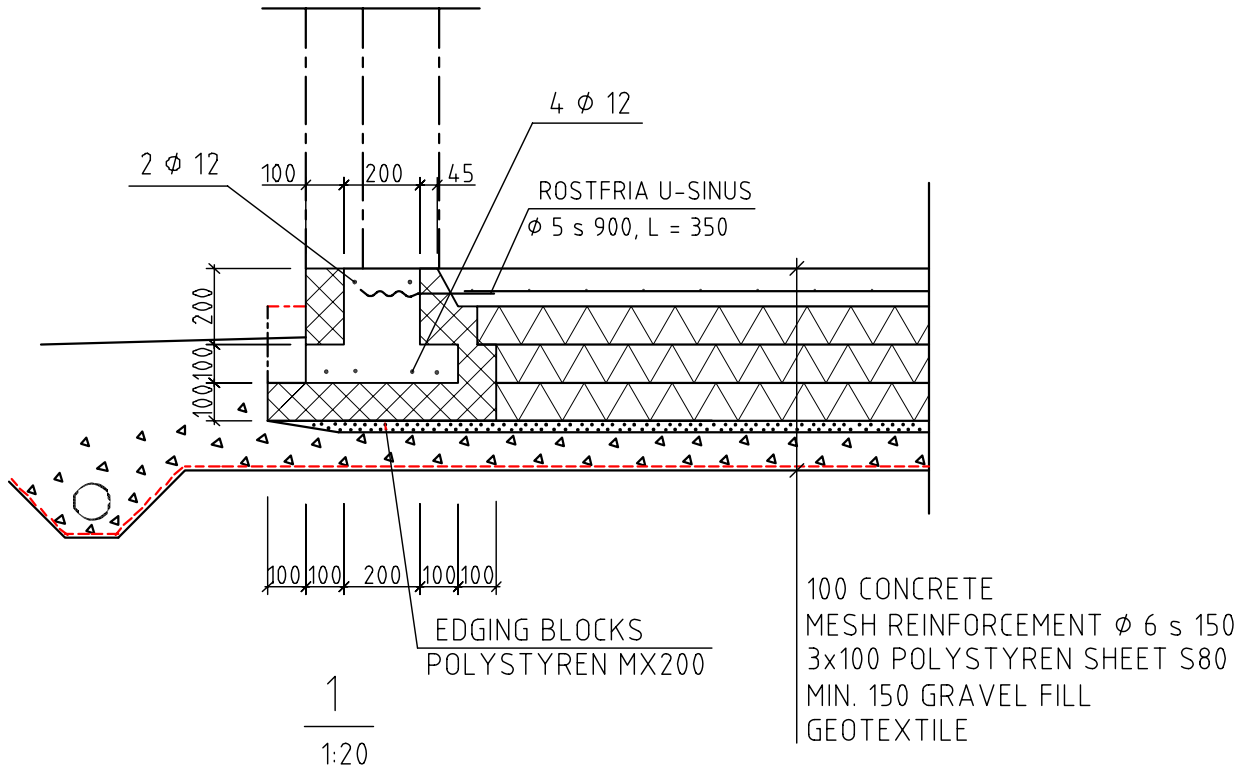


18. Reinforcement of slab is steel mesh as specified in your set of work drawings. If UFH is to be installed tripple overlap must be avoided.

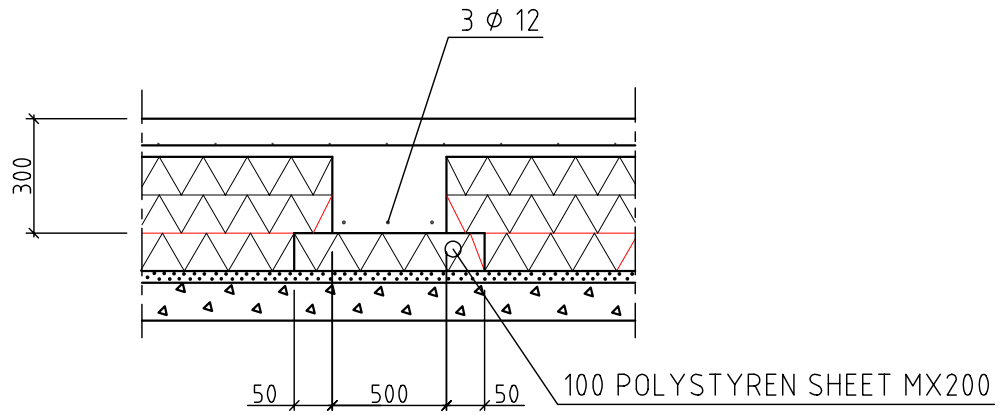


19. When UFH pipes are fitted on top of steel mesh extra care is important in tieing pipes to the steel mesh to prevent pipes to float up during concreting





1
1:20



2
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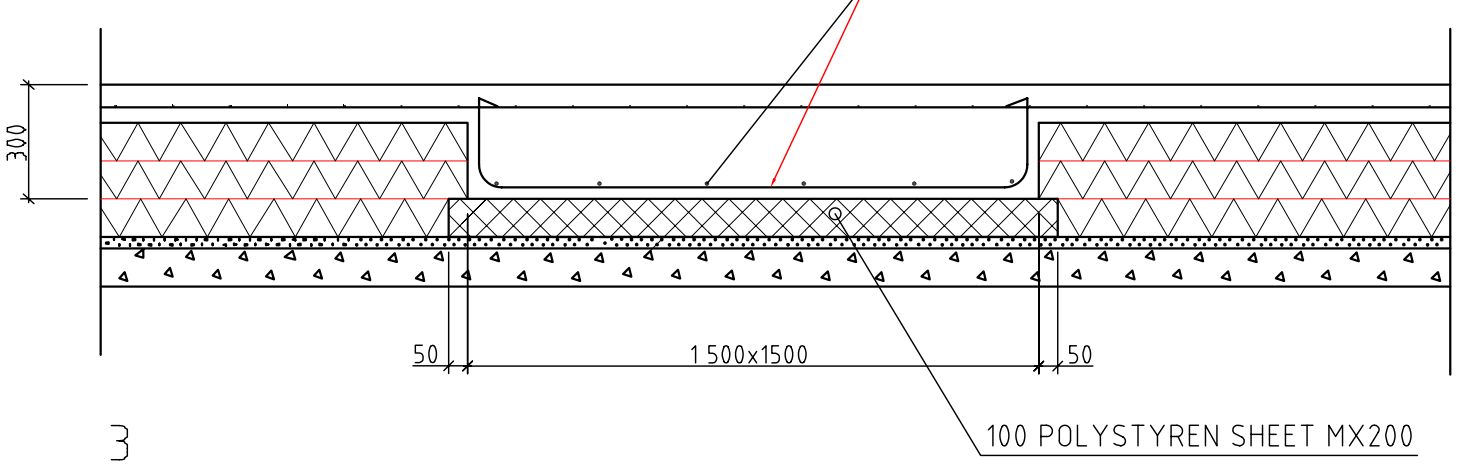
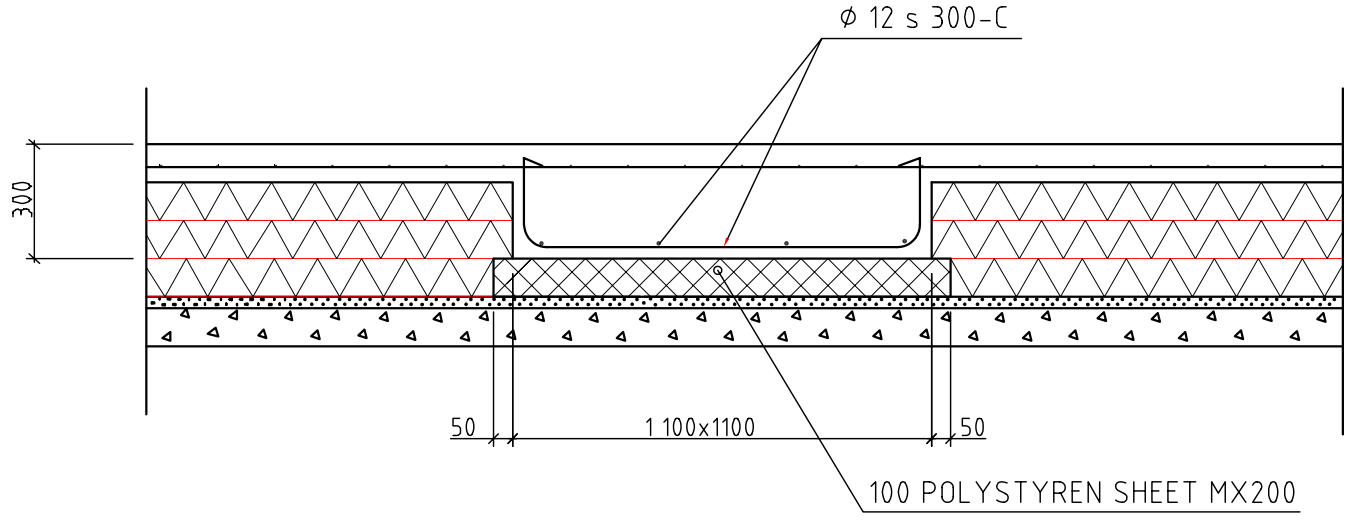


3
1:20



4
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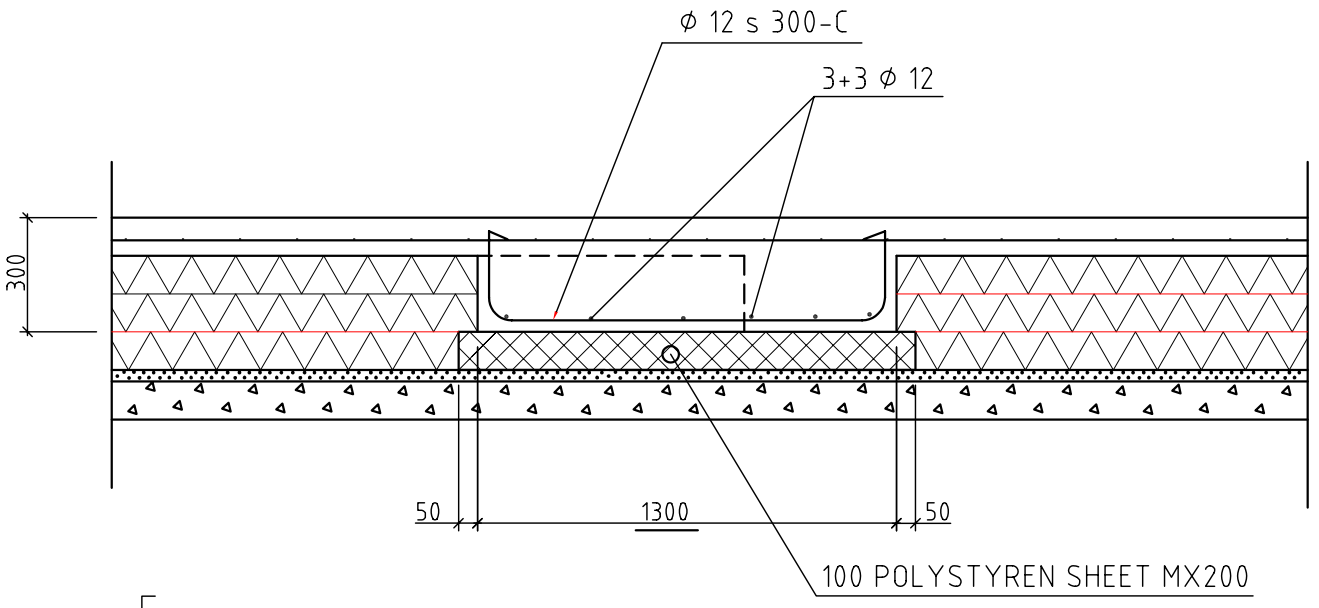


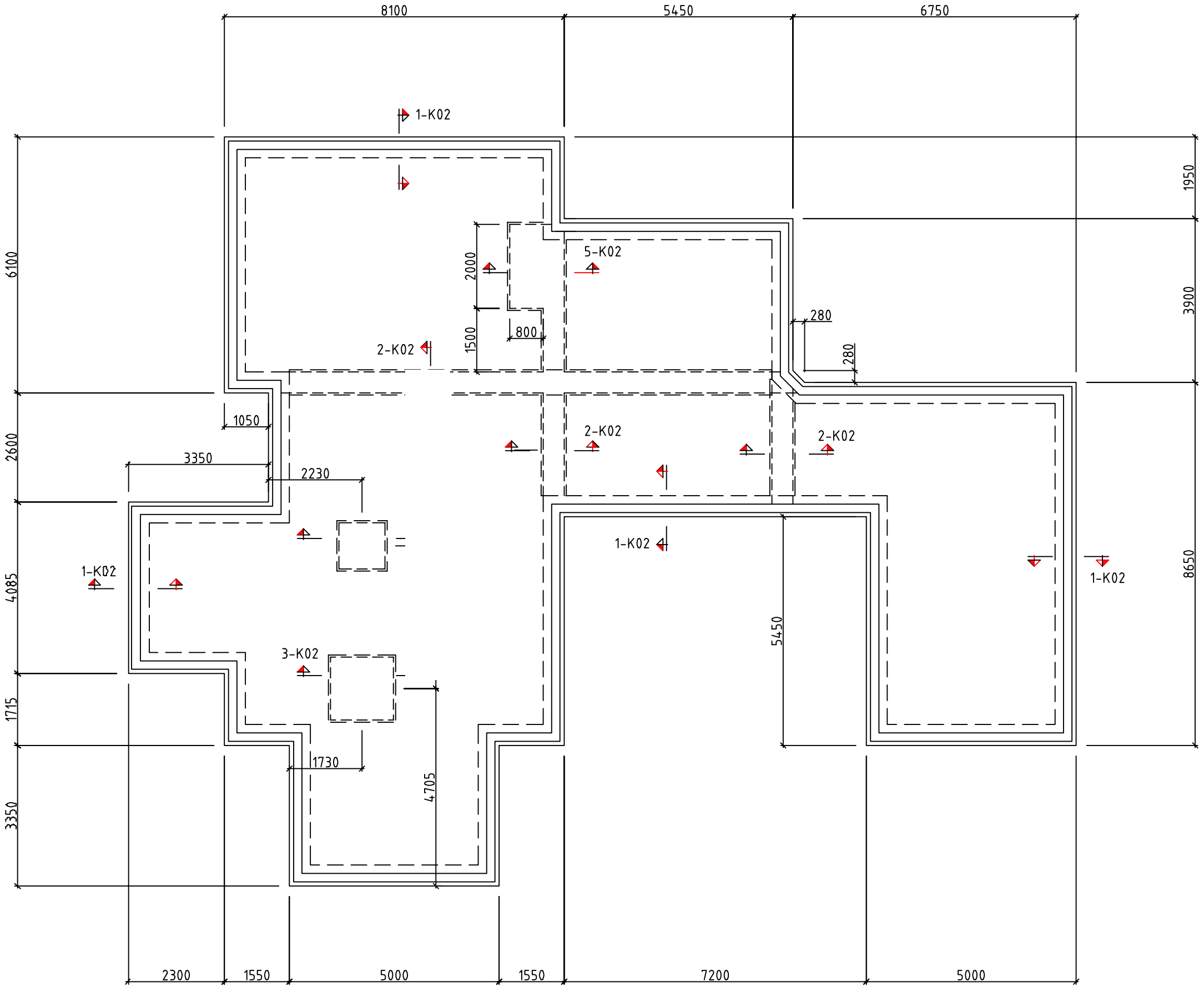
5
1:20

ALL DIMENSIONS TO BE CHECKED

WORK DRAWING

BET	ANT	ÄNDRINGEN AVSER	DATUM	SIGN

UPPDRAG NR	RITAD/KONSTR AV	HANDLÄGGARE
DATUM	ANSVARIG	
SKALA	NUMMER	BET



FOUNDATION PLAN

1:50

ALL DIMENSIONS TO BE CHECKED

WORK DRAWING

ALLMÄNNA FÖRESKRIFTER

DÄR EJ ANNAT ANGES GÄLLER

ALLMÄNT

ALLA MÅTT ANGES I MILLIMETER.

BESTÄMMELSER

VID ARBETETS UTFÖRANDE SKALL FÖLJANDE BESTÄMMELSER MED NÄMNDA NORMER OCH FÖRESKRIFTER TILLÄMPAS.
BKR (fom BFS 2003:6)
BBR 10
BBK 04
HUS AMA 98

GEOTEKNIK

GEOTEKNISK KLASS GK1.
MARKEN FÖRUTSÄTTES HA ETT DIMENSIONERANDE GRUNDTRYCKSVÄRDE fd = 100 kPa.
ANVISN. I EV. GRUNDUNDERSÖKNING SKALL BEAKTAS VID EV. FÖREKOMST AV MARKRADON UTFÖRES EKTÖREN.

DRÄNERING

RUNT PLATTAN UTLÄGGES DRÄNERINGSLEDNING
o 100 TYP LUBONYL ELLER LIKVÄRDIG
LEDNING LÄGGES MED LUTNING MIN 1:200 MOT DRÄNERINGSBRUNN.
KRINGFYLLNAD AV LEDNING SKALL STÅ I FÖRBINDELSE MED DRÄNERINGSLAGER UNDER PLATTAN.

PLATSGJUTNA BETONG-KONSTRUKTIONER

BETONGKVALITETER

GRUNDKONSTRUKTION, BOSTAD

EXPONERINGSKLASS: XC1
BTG II, std, C25/30, VCT max 0.55

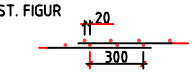
ARMERING:
B500B
NÄT NPs 50

TÄCKANDE BETONGSKIKT:
MOT CELLPLAST: 30 MM
MOT MARK: 50 MM
UTOMHUS, GARAGE: 30 MM
I ÖVRIGT: 20 MM

SKARVNING AV ARMERINGSSTÄNGER
VID ARMERING MED FALLANDE LÄNGDER SKARVAS HÖGST HÄLFTEN AV ARMERINGEN I SAMMA SNITT GENOM OMLOTTLÄGGNING

SKARVLÄNGDER
ø 10: 500 MM
ø 12: 600 MM

NÄT SKARVAS ENL. VIDST. FIGUR



PLATTANS BUKTIGHETSTOLERANSER ENL, HUS AMA 98

GOLV I VÅTRUM STÅLSLIPAS MED FALL MOT GOLVBRUNN ENL. BBR 10.

VID GOLVBELÄGGNING SKALL PLATTAN VARA UTTORKAD ENL. HUS AMA 98, TAB. Q2

OBS. MONTERINGSANVISNINGAR FRÅN U-MIN GRUND SKALL TILLÄMPAS.

EV. ERF. TJÄLISOLERING ÄR EJ REDIVISAD

BET	ANT	ÄNDRINGEN AVSER	DATUM	SIGN

UPPDRAG NR	RITAD/KONSTR AV	HANDLÄGGARE
DATUM	ANSVARIG	

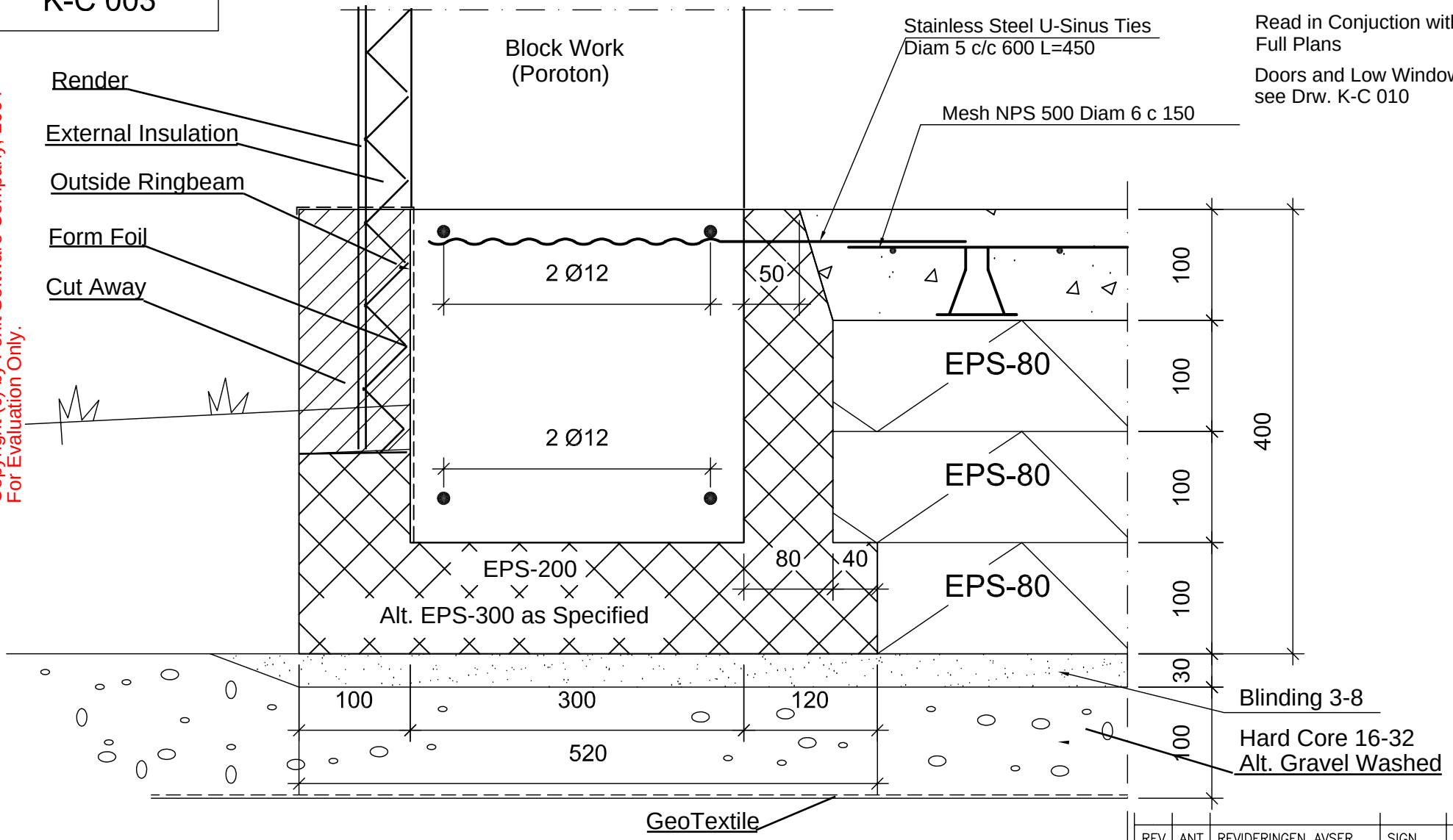
SKALA	NUMMER	BET

K-C 003

Measurements in Millimeter

Read in Conjuction with Full Plans

Doors and Low Windows see Drw. K-C 010



U-Min Foundation H=400

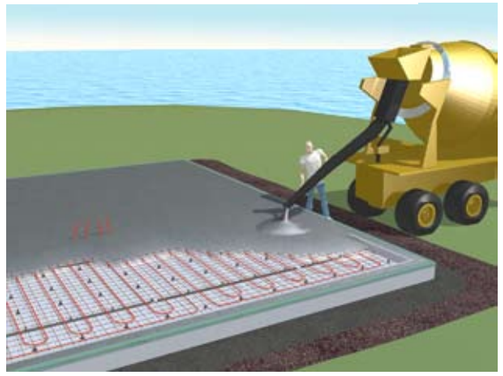
U-Value 0.122 W/m^2°K

REV	ANT	REVIDERINGEN AVSER	SIGN	DATUM

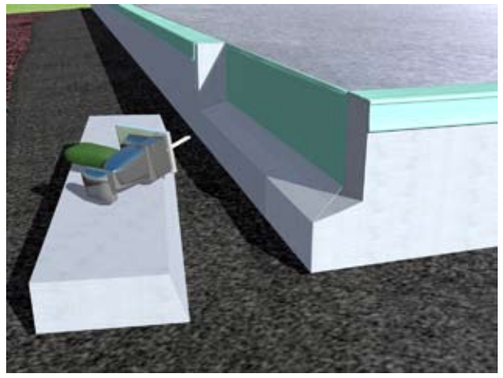
U-Min Foundation H=400
Patented

RITAD AV	GRANSKAD AV	DATUM	ARBETSNUMMER	SKALA	RITNINGSNUMMER	REV
TA		05-11-29		1:5	K-C-003	

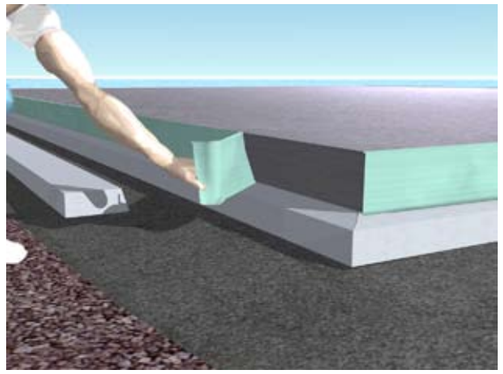
20. Always make sure that your concrete supplier can mix the concrete in accordance with the specification on your work drawings
Our 300mm and 340mm high elements do not need any support as concrete is poured.



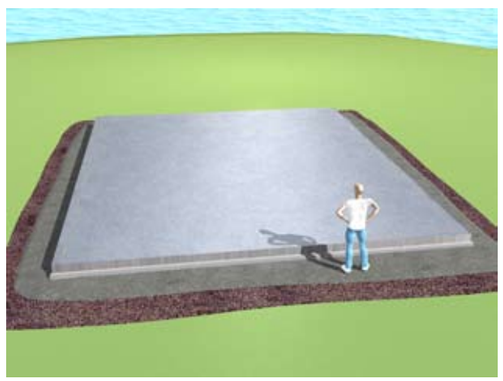
21. As the concrete has hardened, normally after one day, the outer flange can be cut away. Easiest way is using our specially designed saw. It is possible to use a standard Jig Saw, the blade is tilted 30 degrees.



22. Remove the Form Foil



23. Take a step back and admire your new U-Min foundation



Special Designs

High or Extreme Loads on the Ring Beam

To take up high loads, both Point Loads and Linear loads one or more Load Distribution Slabs are positioned under the Ring Beam Element. A hole is cut in the EPS Element to connect the Ring Beam with the slab as concrete is poured into the Ring Beam Element.

High or Extreme Loads on the Slab

With High or Extreme loads on the slab as a loadbearing wall or a fireplace or machinery on an industrial slab the solution is simple. A reinforced beam is created by cutting out the EPS slab where needed and the beam shaped as the concrete is poured.

When Piling is required

If Ground Conditions requre piling, the design is as simple as when using the load distribution slabs. The load is taken from the Ring Beam to the Pile Cap without creating any coldbridging. The Pile or the Pile Cap is not cutting across any Iso Therms.

When Special Conditions apply Special Solutions are needed. These three Solutions are only examples of Special design. If you think that you need a Special Design just contact us and our engineers will resolve the problems with the Design.

Welcome to contact Scandinavian Foundations Ltd

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